



Application Serial No. 10/577,532

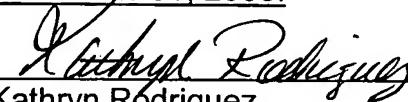
1/15/2011  
PATENT  
DOCKET CU-4801

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Re Application: Sung-Ik PARK et al. ] GRP ART UNIT: 2611  
Serial No: 10/577,532 ] Ex.:  
Filed: April 28, 2006 ]  
For: **APPARATUS AND METHOD OF ON-CHANNEL REPEATER**

**Certification under 37 C.F.R. §1.8(a)**

I hereby certify that this paper (along with any paper referred to as being attached or enclosed) is being deposited with The United States Postal Service with sufficient postage as first class mail in an envelope addressed to The Commissioner for Patents, P.O. Box 1450 Alexandria, VA 22313-1450 on December 31, 2008.

  
\_\_\_\_\_  
Kathryn Rodriguez

**PETITION IN SUPPORT OF JOINT INVENTORS FILING ON BEHALF OF  
NONSIGNING UNAVAILABLE INVENTOR UNDER 37 CFR 1.47  
AND  
REQUEST TO ADD NOT-NAMED INVENTOR UNDER 37 CFR 1.48(a)**

The Commissioner for Patents  
P.O. Box 1450  
Alexandria VA 22313-1450

Dear Sir:

The available applicants respectfully submit this petition in support of the joint inventors filing on behalf of nonsigning unavailable inventor under 37 CFR 1.47. The Commissioner is authorized to charge any fee associated with filing of this paper to Deposit Account No. 12-0400.

Enclosed herewith are:

- (1) ASSENT OF ASSIGNEE TO ADDITION OF INVENTOR;
- (2) STATEMENT UNDER 37CFR 3.73(b);

(3) STATEMENT OF NON-DECEPTIVE INTENT BY PERSON BEING ADDED  
BY PETITION TO CHANGE INVENTORSHIP (37CFR1.324(b)(1);

(4) ASSIGNMENT signed by Mr. Ho-Min EUM

(5) The Combined Declaration and Power of Attorney signed by all available joint inventors, who signed for themselves as well as on behalf of the missing inventor, **Mr. Seung-Won KIM.**

"All the available joint inventors must (1) make oath or declaration on their own behalf as required by 37 CFR 1.63 or 1.175 (see MPEP § 602, § 605.01, and § 1414) and (2) make oath or declaration on behalf of the nonsigning joint inventor as required by 37 CFR 1.64. An oath or declaration signed by all the available joint inventors with the signature block of the nonsigning inventor(s) left blank may be treated as having been signed by all the available joint inventors on behalf of the nonsigning inventor(s), unless otherwise indicated." MPEP 409.03(a)(A).

(6) The Statement Of Facts In Support Of Filing On Behalf Of Nonsigning  
Unavailable Inventor (37 CFR 1.47).

(7) The proof of bona fide and diligent attempt to obtain the missing inventor's  
signature as appendix attachments to the Statement of Facts.

Should the Petitions Attorney have any remaining questions or concerns, the  
Petitions Attorney is encouraged to contact the undersigned attorney by telephone to  
expeditiously resolve such concerns.

Respectfully submitted,

  
Loren K. Thompson, Ph.D., Reg. No. 45,918  
Ladas & Parry LLP  
224 South Michigan Avenue  
Chicago, Illinois 60604  
(312) 427-1300

Dated: December 31, 2008



Application Serial No. 10/577,532

PATENT  
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## ATTACHMENT (1)

TO

**PETITION IN SUPPORT OF JOINT INVENTORS FILING ON BEHALF OF  
NONSIGNING UNAVAILABLE INVENTOR UNDER 37 CFR 1.47**

AND

**REQUEST TO ADD NOT-NAMED INVENTOR UNDER 37 CFR 1.48(a)**

--

**ASSENT OF ASSIGNEE TO ADDITION OF INVENTOR**

DOCKET: CU-4801

**IN THE UNITED STATES PATENT & TRADEMARK OFFICE**

APPLICANT:	Sung-Ik PARK et al	)
		)
SERIAL NO:	10/577,532	) Group Art Unit: 2611
		)
FILING DATE:	April 28, 2006	) Examiner:
		)
TITLE:	APPARATUS AND METHOD OF ON-CHANNEL REPEATER	)
		)

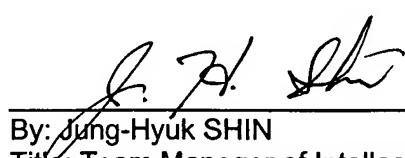
**ASSENT OF ASSIGNEE TO ADDITION OF INVENTOR**

Electronics and Telecommunications Research Institute 161, Gajeong-dong, Yuseong-gu, Daejon 305-350, Republic of Korea, assignee of the entire right, title, and interest in the patent application identified above by virtue of Assignments from the inventors of the patent application identified above, hereby assents to the correction of inventorship being filed simultaneously herewith to correct the inventorship to Sung-Ik PARK, Yong-Tae LEE, Jae-Hyun SEO, Seung-Won KIM, Soo-In LEE, and Ho-Min EUM as joint inventors in the subject application.

A Statement under 37 CFR 3.73(b) is attached herewith.

Electronics and Telecommunications  
Research Institute

September 4, 2007  
Date

  
By: Jung-Hyuk SHIN  
Title: Team Manager of Intellectual  
Property Team

Application Serial No. 10/577,532

PATENT  
DOCKET CU-4801

## **ATTACHMENT (2)**

**TO**  
**PETITION IN SUPPORT OF JOINT INVENTORS FILING ON BEHALF OF**  
**NONSIGNING UNAVAILABLE INVENTOR UNDER 37 CFR 1.47**  
**AND**  
**REQUEST TO ADD NOT-NAMED INVENTOR UNDER 37 CFR 1.48(a)**

--

**STATEMENT UNDER 37CFR 3.73(b)**

DOCKET: CU-4801

**IN THE UNITED STATES PATENT & TRADEMARK OFFICE**

APPLICANT: Sung-Ik PARK et al.

SERIAL NO: 10/577,532

FILING DATE: April 28, 2006

TITLE: APPARATUS AND METHOD OF ON-CHANNEL REPEATER

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**STATEMENT UNDER 37 CFR 3.73(b)**

Electronics and Telecommunications Research Institute, a corporation (or partnership, university, government agency, etc.) states that it is the assignee of the entire right, title, and interest in the patent application identified above, by virtue of a chain of title from the inventors to Electronics and Telecommunications Research Institute, as follows:

From Sung-Ik PARK, Yong-Tae LEE, Jae-Hyun SEO, Seung-Won KIM, and Soo-In LEE to Electronics and Telecommunications Research Institute. The document was recorded in the United States Patent and Trademark Office on April 28, 2006 at Reel 017877, Frame 0652.

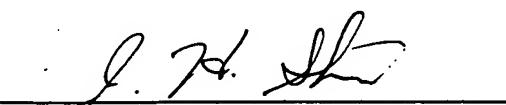
From Ho-Min EUM to Electronics and Telecommunications Research Institute. The document is being recorded in the United States Patent and Trademark Office concurrently herewith, of which a copy is attached.

The undersigned (whose title is supplied below) is authorized to act on behalf of the assignee.

Electronics and Telecommunications  
Research Institute

September 4, 2007  
Date

Telephone Number:

  
\_\_\_\_\_  
Name: Jung-Hyuk SHIN  
Title: Team Manager of Intellectual  
Property Team

Application Serial No. 10/577,532

PATENT  
DOCKET CU-4801

## **ATTACHMENT (3)**

TO  
**PETITION IN SUPPORT OF JOINT INVENTORS FILING ON BEHALF OF  
NONSIGNING UNAVAILABLE INVENTOR UNDER 37 CFR 1.47  
AND  
REQUEST TO ADD NOT-NAMED INVENTOR UNDER 37 CFR 1.48(a)**

--

**STATEMENT OF NON-DECEPTIVE INTENT BY PERSON BEING ADDED BY  
PETITION TO CHANGE INVENTORSHIP (37CFR1.324(b)(1))**

DOCKET: CU-4801

**IN THE UNITED STATES PATENT & TRADEMARK OFFICE**

APPLICANT: Sung-Ik PARK et al

SERIAL NO: 10/577,532

FILING DATE: April 28, 2006

TITLE: APPARATUS AND METHOD OF ON-CHANNEL REPEATER

COMPLETION OF PCT/KR2004/002767 filed 29 October 2004

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**STATEMENT OF NON-DECEPTIVE INTENT BY PERSON BEING ADDED**  
**BY PETITION TO CHANGE INVENTORSHIP**  
**(37 CFR 1.324(b)(1))**

I, Ho-Min EUM of 145-13, Sinseong-dong, Yuseong-gu, Daejon 305-345, Republic of Korea and a citizen of the Republic of Korea, is the person who is being added as an inventor by the petition being submitted to correct the inventorship of this patent application. I hereby declare that the inventorship error in failing to include my name as an inventor on this patent application occurred without any deceptive intention on my part.

Sep. 3rd. , 2007

Date

Ho-Min EUM

Ho-Min EUM

Application Serial No. 10/577,532

PATENT  
DOCKET CU-4801

## **ATTACHMENT (4)**

**TO**  
**PETITION IN SUPPORT OF JOINT INVENTORS FILING ON BEHALF OF**  
**NONSIGNING UNAVAILABLE INVENTOR UNDER 37 CFR 1.47**  
**AND**  
**REQUEST TO ADD NOT-NAMED INVENTOR UNDER 37 CFR 1.48(a)**

--

**ASSIGNMENT signed by Mr. Ho-Min EUM**

**UNITED STATES OF AMERICA**  
**ASSIGNMENT**

---

In consideration of the payment of ASSIGNEE to ASSIGNOR of the sum of One Dollar (\$1.00), the receipt of which is hereby acknowledged, and for the other good and valuable consideration,

**ASSIGNOR:**

**Ho-Min EUM**  
145-13, Sinseong-dong, Yuseong-gu  
Daejon 305-345, Republic of Korea

hereby sells, assigns and transfers to

**ASSIGNEE:**

**ELECTRONICS AND TELECOMMUNICATIONS RESEARCH INSTITUTE**  
161, Gajeong-dong, Yuseong-gu  
Daejon 305-350, Republic of Korea

and the successors, assigns and legal representatives of the ASSIGNEE the entire right, title and interest for the United States and its territorial possessions in and to, any and all improvements which are disclosed in the Application entitled APPARATUS AND METHOD OF ON-CHANNEL REPEATER which application was

filed as U.S. Serial No. 10/577,532 on April 28, 2006

and, in and to all Letters Patent to be obtained for said invention by the above application or any continuation, division, renewal, substitute, reissue or re-examination thereof.

ASSIGNOR hereby covenants that no assignment, sale agreement or encumbrance has been or will be made or entered into which would conflict with this assignment and sale;

ASSIGNOR further covenants that ASSIGNEE will, upon its request, be provided promptly with all pertinent facts and documents relating to said invention and said Letters Patent and legal equivalents as may be known and accessible to ASSIGNOR and will testify as to the same in any interference or litigation related thereto and will promptly execute and deliver to ASSIGNEE or its legal representatives any and all papers, instruments or affidavits required to apply for, obtain, maintain, issue and enforce said application, said invention and said Letters Patent and said equivalents thereof which may be necessary or desirable to carry out the purposes thereof.

IN WITNESS WHEREOF, I have set my hand and seal

Sep. 3rd, 2007.

Date

Ho-min Gun

Ho-Min EUM

0699P/1 (U.S. rights)

Application Serial No. 10/577,532

PATENT  
DOCKET CU-4801

## ATTACHMENT (5)

TO  
**PETITION IN SUPPORT OF JOINT INVENTORS FILING ON BEHALF OF  
NONSIGNING UNAVAILABLE INVENTOR UNDER 37 CFR 1.47  
AND  
REQUEST TO ADD NOT-NAMED INVENTOR UNDER 37 CFR 1.48(a)**

--

**The Combined Declaration and Power of Attorney signed by all available joint inventors, who signed for themselves as well as on behalf of the missing inventor,  
Mr. Seung-Won KIM.**

**PATENT**

Docket: CU-4801

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**COMBINED DECLARATION AND POWER OF ATTORNEY**

*(ORIGINAL, DESIGN, NATIONAL STAGE OF PCT, SUPPLEMENTAL, DIVISIONAL,  
CONTINUATION OR CIP)*

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As a below named inventor, I hereby declare that:

**TYPE OF DECLARATION**

This declaration is of the following type: *(check one applicable item below)*

- original
- design
- supplemental

*Note: If the Declaration is for an International Application being filed as a divisional, continuation or continuation-in-part application, do not check next item; check appropriate one of last three items.*

- national stage of PCT

*Note: If one of the following 3 items apply, then complete and also attach ADDED PAGES FOR DIVISIONAL, CONTINUATION OR CIP.*

- divisional
- continuation
- continuation-in-part (CIP)

**INVENTORSHIP IDENTIFICATION**

*WARNING: If the inventors are each not the inventors of all the claims, an explanation of the facts, including the ownership of all the claims at the time the last claimed invention was made, should be submitted.*

My residence, post office address and citizenship are as stated below, next to my name. I believe that I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter that is claimed, and for which a patent is sought on the invention entitled:

**TITLE OF INVENTION**

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APPARATUS AND METHOD OF ON-CHANNEL REPEATER

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## SPECIFICATION IDENTIFICATION

the specification of which: (*complete (a), (b) or (c)*)

- (a) is attached hereto.
- (b) was filed on April 28, 2006 as Serial No. 10/577,532.

*Note: Amendments filed after the original papers are deposited with the PTO that contain new matter are not accorded a filing date by being referred to in the Declaration. Accordingly, the amendments involved are those filed with the application papers or, in the case of a supplemental Declaration, are those amendments claiming matter not encompassed in the original statement of invention or claims. See 37 CFR 1.67.*

- (c) was described and claimed in PCT International Application No. \_\_\_\_\_  
filed on \_\_\_\_\_ and as amended under PCT Article 19 on \_\_\_\_\_  
(if any).

## ACKNOWLEDGEMENT OF REVIEW OF PAPERS AND DUTY OF CANDOR

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information, which is material to patentability as defined in 37, Code of Federal Regulations, § 1.56,

*(also check the following items, if desired)*

- and which is material to the examination of this application, namely, information where there is a substantial likelihood that a reasonable Examiner would consider it important in deciding whether to allow the application to issue as a patent, and
- in compliance with this duty, there is attached an information disclosure statement, in accordance with 37 CFR 1.98.

## PRIORITY CLAIM (35 U.S.C. § 119(a)-(d))

I hereby claim foreign priority benefits under Title 35, United States Code, § 119(a)-(d) of any foreign application(s) for patent or inventor's certificate or of any PCT international application(s) designating at least one country other than the United States of America listed below and have also identified below any foreign application(s) for patent or inventor's certificate or any PCT international application(s) designating at least one country other than the United States of America filed by me on the same subject matter having a filing date before that of the application(s) of which priority is claimed.

(complete (d) or (e))

(d) no such applications have been filed.  
 (e) such applications have been filed as follows.

*Note: Where item (c) is entered above and the international application which designated the U.S. itself claimed priority check item (e), enter the details below and make the priority claim.*

**PRIOR FOREIGN/PCT APPLICATION(S) FILED WITHIN 12 MONTHS  
(6 MONTHS FOR DESIGN) PRIOR TO THIS APPLICATION  
AND ANY PRIORITY CLAIMS UNDER 35 U.S.C. § 119(a)-(d)**

COUNTRY (OR INDICATE IF PCT)	APPLICATION NUMBER	DATE OF FILING (day/month/year)	PRIORITY CLAIMED UNDER 35 USC 119
Rep. of Korea	10-2003-0076098	29 October 2003	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/>

**CLAIM FOR BENEFIT OF PRIOR U.S. PROVISIONAL APPLICATION(S)  
(35 U.S.C. § 119(e))**

I hereby claim the benefit under Title 35, United States Code, § 119(e) of any United States provisional application(s) listed below:

PROVISIONAL APPLICATION NUMBER	FILING DATE

**ALL FOREIGN APPLICATION(S), IF ANY, FILED MORE THAN 12 MONTHS  
(6 MONTHS FOR DESIGN) PRIOR TO THIS U.S. APPLICATION**

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*Note: If the application filed more than 12 months from the filing date of this application is a PCT filing forming the basis for this application entering the United States as (1) the national stage or (2) a continuation, divisional, or continuation-in-part, then also complete ADDED PAGES TO COMBINED DECLARATION AND POWER OF ATTORNEY FOR DIVISIONAL, CONTINUATION OR CIP APPLICATION for benefit of the prior U.S. or PCT application(s) under 35 U.S.C. § 120.*

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## POWER OF ATTORNEY

I hereby appoint the practitioners associated with **Customer Number 26530** to prosecute this application and transact all business in the Patent and Trademark Office connected therewith.

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**SEND CORRESPONDENCE TO:**

Customer Number 26530

Richard J. Streit  
c/o Ladas & Parry LLP  
224 South Michigan Avenue  
Chicago, Illinois 60604

**DIRECT TELEPHONE CALLS TO:**

*(Name and telephone number)*

(312) 427-1300

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**DECLARATION**

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

**SIGNATURE(S)**

*Note: Carefully indicate the family (or last) name, as it should appear on the filing receipt and all other documents.*

**Full name of first joint inventor**

<u>Sung-Ik</u> (Given Name)	<u>PARK</u> (Family (or Last) Name)
<u>Inventor's signature</u> <u>Sept. 3rd, 2007</u>	<u>Sung Ik Park</u>
<u>Date</u>	<u>Country of Citizenship</u>
<u>Residence</u>	<u>Rep. of Korea</u>
<u>Post Office Address</u>	<u>Daejon, Republic of Korea</u>
	<u>146-14, Sinseong-dong, Yuseong-gu,</u>
	<u>Daejon 305-804, Republic of Korea</u>

---

**Full name of second joint inventor**

Yong-Tae \_\_\_\_\_ LEE \_\_\_\_\_  
(Given Name) (Family (or Last) Name)  
Inventor's signature *Jongtae Lee*  
Date 2007/9/3 Country of Citizenship Rep. of Korea  
Residence Daejon, Republic of Korea  
Post Office Address #203-1307 Mokryun Apt. Dunsan 1-dong, Seo-gu,  
Daejon 302-771, Republic of Korea

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**Full name of third joint inventor**

Jae-Hyun \_\_\_\_\_ SEO \_\_\_\_\_  
(Given Name) (Family (or Last) Name)  
Inventor's signature *JaeHyun Seo*  
Date 2007/9/3 Country of Citizenship Rep. of Korea  
Residence Daejon, Republic of Korea  
Post Office Address #102-1102 Hanul Apt., Sinseong-dong, Yuseong-gu,  
Daejon 305-707, Republic of Korea

---

**Full name of fourth joint inventor**

Seung-Won \_\_\_\_\_ KIM \_\_\_\_\_  
(Given Name) (Family (or Last) Name)  
Inventor's signature \_\_\_\_\_  
Date \_\_\_\_\_ Country of Citizenship Rep. of Korea  
Residence Daejon, Republic of Korea  
Post Office Address #109-1804 Narae Apt., Jeonmin-dong, Yuseong-gu,  
Daejon 305-729, Republic of Korea

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**Full name of fifth joint inventor**

Soo-In \_\_\_\_\_ LEE \_\_\_\_\_  
(Given Name) (Family (or Last) Name)  
Inventor's signature *Soo In Lee*  
Date 2007/9/3 Country of Citizenship Rep. of Korea  
Residence Daejon, Republic of Korea  
Post Office Address #106-606 Clover Apt., Dunsan-dong, Seo-gu,  
Daejon 302-772, Republic of Korea

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**Full name of sixth joint inventor**

Ho-Min (Given Name)	(Middle Initial or Name)	EUM (Family (or Last) Name)
Inventor's signature <u>Kim h. Eum</u>		
Date <u>Sep. 3rd, 2007</u>	Country of Citizenship	Rep. of Korea
Residence <u>Daejon, Republic of Korea</u>		
Post Office Address <u>145-13, Sinseong-dong, Yuseong-gu</u>		
<u>Daejon 305-345, Republic of Korea</u>		

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Application Serial No. 10/577,532

PATENT  
DOCKET CU-4801

## **ATTACHMENT (6)**

**TO**  
**PETITION IN SUPPORT OF JOINT INVENTORS FILING ON BEHALF OF**  
**NONSIGNING UNAVAILABLE INVENTOR UNDER 37 CFR 1.47**  
**AND**  
**REQUEST TO ADD NOT-NAMED INVENTOR UNDER 37 CFR 1.48(a)**

--

**The Statement Of Facts In Support Of Filing On Behalf Of Nonsigning  
Unavailable Inventor (37 CFR 1.47)**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Application: Sung-Ik PARK et al. ]  
Serial No: 10/577,532 ]  
Filed: April 28, 2006 ]

For: APPARATUS AND METHOD OF ON-CHANNEL REPEATER

the specification of which:

- (a) is attached hereto.
- (b) was filed on April 28, 2006 as  Serial No. 10/577,532
- (c) was described and claimed in PCT International Application No. PCT/KR2004/002767 filed on October 29, 2004.

**STATEMENT OF FACTS IN SUPPORT OF FILING ON BEHALF OF NONSIGNING  
UNAVAILABLE INVENTOR (37 CFR 1.47)**

This statement is made as to the exact facts that are relied upon to establish the diligent effort made to secure the execution of the declaration by the nonsigning inventor for the above-identified patent application before deposit thereof in the Patent & Trademark Office.

*(check next item, if applicable)*

- Because signing on behalf of the nonsigning inventor is by a person or entity showing a sufficient proprietary interest, this statement also recites facts as to why this action was necessary to preserve the rights of the parties or to prevent irreparable damage.

This statement is being made by the available person having first hand knowledge of the facts recited therein.

**NOTE:** *The statement "must be signed, where at all possible, by a person having first-hand knowledge of the fact recited therein." MPEP 409.03(d), 7th ed. If different persons have first-hand knowledge of different facts, then a declaration from each such person as to those facts he or she knows should be submitted separately.*

**NOTE:** *Copies of documentary evidence, such as certified mail return receipt, cover letter of instructions, telegrams, etc., that support a finding that the nonsigning inventor could not be reached should be made part of the affidavit or declaration. It is important that the affidavit or declaration contain statements of fact as opposed to conclusions. MPEP 409.03(d) 7th ed.*

### IDENTIFICATION OF PERSON MAKING THIS STATEMENT OF FACTS

Name: KIM, Hyang-Sil  
Address: SHINSUNG INTERNATIONAL PATENT & LAW FIRM  
ID Tower #601, Jungdaero 105 (99-7 Garak-dong), Songpa-gu  
Seoul 138-805, Republic of Korea

### EFFORTS TO PREPARE DECLARATION AND OBTAIN INVENTOR'S SIGNATURE

Mr. Seung-Won KIM, one of the joint inventors of the present application, has been properly named as the joint inventor of PCT International Application No. PCT/KR2004/002767 filed on October 29, 2004, from which the present application claims the benefit of priority.

Mr. Seung-Won KIM then has properly executed COMBINED DECLARATION AND POWER OF ATTORNEY on April 19, 2006 for the present U.S. Serial No. 10/577,532, and the executed COMBINED DECLARATION AND POWER OF ATTORNEY has been filed with the United Patent and Trademark Office on April 28, 2006.

Furthermore, Mr. Seung-Won KIM has properly executed ASSIGNMENT on April 19, 2006 assigning his entire right, title, and interest for the present U.S. Serial No. 10/577,532 to ELECTRONICS AND TELECOMMUNICATIONS RESEARCH INSTITUTE having the address at 161, Gajeong-dong, Yuseong-gu, 305-350 Daejon, Republic of Korea, and the executed ASSIGNMENT has been filed with the United Patent and Trademark Office on April 28, 2006.

About July 14, 2006, it has been discovered that Mr. Ho-Min EOM, a citizen of Republic of Korea, residing at 145-13, Sinseong-dong, Yuseong-gu, Daejon 305-345, Republic of Korea has not been named as one of the joint inventors of the present U.S. Serial No. 10/577,532 due to inadvertence and without any deceptive intention to omit on the part of Mr. Ho-Min EOM or the joint inventors or the assignee.

As required under 37 C.F.R. §1.48(a) to correct inventorship for adding an inventor of the present U.S. Serial No. 10/577,532 due to error in a non-provisional application, a new Combined Declaration and Power of Attorney (i.e., "the new Declaration") to be signed by all of the actual inventors, who are Sung-Ik PARK, Yong-Tae LEE, Jae-Hyun SEO, Seung-Won KIM, Soo-In LEE, and Ho-Min EUM, has been prepared, and each of the named joint inventors were asked to execute the new Declaration for filing with the USPTO.

However, Mr. Seung-Won KIM has resigned from the employment of ELECTRONICS AND TELECOMMUNICATIONS RESEARCH INSTITUTE (the assignee of the present application). After the resignation from ELECTRONICS AND

TELECOMMUNICATIONS RESEARCH INSTITUTE, Mr. Seung-Won KIM could not be reached by ELECTRONICS AND TELECOMMUNICATIONS RESEARCH INSTITUTE.

ELECTRONICS AND TELECOMMUNICATIONS RESEARCH INSTITUTE has attempted to contact Mr. Seung-Won KIM to obtain his signature on the new Declaration but was not successful. Even as of the date of this paper, whereabouts of Mr. Seung-Won KIM is still not known to the joint inventors and the assignee of the present application.

As a final bona fide attempt to obtain Mr. Seung-Won KIM's signature, Mr. Hyang-Sil KIM (of SHINSUNG INTERNATIONAL PATENT & LAW FIRM) mailed a certified letter enclosing:

- (1) the English specification and drawings of the present application; and
- (2) the new Combined Declaration and Power of Attorney (the new Declaration).

to the last known address of Mr. Seung-Won KIM (see below) via certified mail on November 19, 2008. In the letter, Mr. Seung-Won KIM was specifically requested to sign and the return the enclosed new Combined Declaration and Power of Attorney by November 26, 2008.

However, the original mail sent to Mr. Seung-Won KIM enclosing the above documents was returned back to the sender. The joint inventors and the assignee of the present application are not aware of other correspondence information of Mr. Seung-Won KIM.

As proof, the followings are submitted:

(1) A copy of the Korean letter dated November 19, 2008 mailed to the last known address of Mr. Seung-Won KIM, requesting the signatures from Mr. Seung-Won KIM and return of the documents by November 26, 2008, and an English translation of the letter;

(2) A receipt from the Korean Post Office ("the Receipt of Mail") acknowledging that the Post Office has mailed the letter with enclosed documents to Mr. Seung-Won KIM via certified mail; and

(3) A copies of the contents of the mail returned back to the sender, including the Korean letter dated November 20, 2008, the new Combined Declaration and Power of Attorney, the English Specification, and the drawings.

#### **LAST KNOWN ADDRESS OF THE NONSIGNING INVENTOR**

**Full name of nonsigning inventor:** Seung-Won KIM  
**Country of Citizenship of nonsigning inventor:** Republic of Korea

**Last known address of nonsigning inventor:**

#105-202 Kukhwa Apt., Samcheon-dong, Seo-gu, Daejon 302-222, Republic of Korea

**NOTE:** *Ordinarily, the last known address will be the last known residence of the nonsigning inventor, but other addresses at which the nonsigning inventor may be reached should also be given below MPEP 409.03(e), 6th ed.*

In addition to the proofs (1)-(3) above, to show diligent effort made to locate the non-signing inventor, Seung-Won KIM, the SHINSUNG INTERNATIONAL PATENT & LAW FIRM has searched the telephone directories listing all telephone numbers and the corresponding names of persons residing at Seo-gu, Daejon, Republic of Korea, which is an area of Korea in which the missing inventor, Seung-Won KIM, is most likely to reside.

After search, the SHINSUNG INTERNATIONAL PATENT & LAW FIRM has discovered that there are 3 persons named Seung-Won KIM residing at Seo-gu, Daejon, Republic of Korea.

The SHINSUNG INTERNATIONAL PATENT & LAW FIRM then then telephoned each of all 193 persons to locate the non-signing inventor Seung-Won KIM. However, none of the 193 persons was the non-signing inventor Seung-Won KIM.

As proof, the followings are submitted:

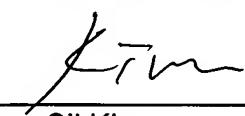
(3) A copy of the relevant page of the Korean telephone directory listing at least all of the persons having the name of Seung-Won KIM, which numbers 193 in all; and

(4) English translation of the above relevant page of the Korean telephone directory listing at least all of the 193 Seung-Won KIM's listed in the telephone directory including their addresses and telephone numbers.

I, Hyang-Sil Kim, declare that all statements made herein of my own knowledge are true and all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

November 26, 2008

Date

  
\_\_\_\_\_  
Hyang-Sil Kim  
SHINSUNG INTERNATIONAL  
PATENT & LAW FIRM

## ATTACHMENT (7)

TO  
PETITION IN SUPPORT OF JOINT INVENTORS FILING ON BEHALF OF  
NONSIGNING UNAVAIABLE INVENTOR UNDER 37 CFR 1.47  
AND  
REQUEST TO ADD NOT-NAMED INVENTOR UNDER 37 CFR 1.48(a)

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## APPENDIX (1)

TO  
STATEMENT OF FACTS

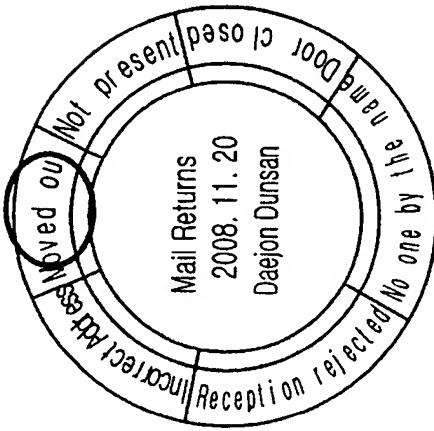
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- (1) A copy of the Korean letter dated November 19, 2008 mailed to the last known address of Mr. Seung-Won KIM, requesting the signatures from Mr. Seung-Won KIM and return of the documents by November 26, 2008, and an English translation of the letter;
- (2) A receipt from the Korean Post Office ("the Receipt of Mail") acknowledging that the Post Office has mailed the letter with enclosed documents to Mr. Seung-Won KIM via certified mail; and
- (3) A copies of the contents of the mail returned back to the sender including the Korean letter dated November 20, 2008, the new Combined Declaration and Power of Attorney, the English Specification, and the drawings.

SHINSUNG  
INTERNATIONAL PATENT & LAW FIRM  
ID Tower #601, Jungdaero 105 (99-7 Garak-dong)  
Songpa-gu, Seoul, Korea  
KIM, Hyang-Sil (Tel.: 2009-6159)

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Mail Returns



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11137-04249042 Garakbon-dong, Seoul  
Registered Mail

#105-202 Gukhwa Apt., Samchen-dong,  
Seo-gu, Daejon  
Mr. KIM, Seung-Won

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# 特許法人 信誠

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718565 ( T : 2009-6114 )



한국 특허 출원 등록증  
등록번호 : 105-2009-6114  
등록일자 : 2009. 11. 20

105-2009-6114

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2009/11/19



2009-6114-2-24-

안녕하세요? 김 승 원 연구원님.

특허법인 신성의 김 향 실 입니다.

하기 2건의 미국 출원을 위한 명세서, 청구항, 도면, 위임장, 양도증을  
송부드립니다.

OurRef.	출원일	출원번호
P04EA020/US	2006.4.28	10/577,532
P05EB027/US	2007.6.20	11/722,317

송부드린 서류 확인하신 후 2건의 위임장&양도증에 영문서명후 당소로 우편  
송부해주시기 바랍니다.

업무가 바쁘시더라도 2008년 11월 26일까지 당소로 서류 송부 부탁드립니다.

당주소는 서울시 송파구 가락동 99-7 ID타워 601호 특허법인 신성입니다.

기타 문의 사항 있으시면 연락주시기 바랍니다.

즐거운 하루 되십시오.

김 향 실 드림. (Tel: 02-2009-6159)

Dear Mr. Kim, Seung-Won

I am Kim, Hyang-sil of Shinsung International Patent & Law Firm.

Enclosed are copies of specifications, claims, drawings, and forms of powers of attorney and assignments for filing the following 2 applications in the U.S.A.

Our Ref.	Application Date	Application No.
P04EA020/US	2006.4.28	10/577,532
P05EB027/US	2007.6.20	11/722,317

Please check the enclosed documents, sign the powers of attorneys and assignments regarding the above 2 patent applications, and send us the executed documents.

**It will be appreciated if you could forward the signed documents to our office by November 26, 2008, even though you are busy.**

The address of our office is as follows:

Shinsung International Patent & Law Firm  
ID Tower #601, 99-7 Garak-dong, Songpa-gu, Seoul

If you have any questions, please do not hesitate to contact us.

I hope that you will have a great day.

Kim, hyang-sil (Tel: 02-2009-6159)

## APPARATUS AND METHOD OF ON-CHANNEL REPEATER

### Technical Field

The present invention relates to an on-channel repeater and method thereof; and, more particularly, to an on-channel repeater and method thereof, in which a Radio Frequency (Hereinafter, referred to as "RF") broadcast signal transmitted from a main transmitter is converted into a baseband signal. Noise and multi-path signals generated due to a transmission channel between the main transmitter and the on-channel repeater and a feedback signal generated due to low isolation of transmission/reception antennas of the on-channel repeater are removed from the baseband signal by using an equalizer, and the baseband signal is again converted into a RF broadcast signal such that the same output signal as an input signal of the on-channel repeater is repeated over an on-channel.

### Background Arts

Generally, to provide a broadcasting service, a main transmitter and a repeater are disposed depending on a peripheral topography and natural feature, and depending on a service area of a broadcasting company. The repeater is installed at an area where a weak broadcast signal is received from the main transmitter, and operates to strengthen the signal and to increase a signal transmission area from the main transmitter.

Fig. 1 is a view depicting an example of a broadcasting service using a conventional repeater, and illustrates each repeater using frequencies different from one another.

As shown in Fig. 1, in the broadcasting service using the conventional repeater, first, a main transmitter 101 transmits a broadcast signal using a transmission frequency

(A), and each of repeaters 102 to 105 repeats a signal using a different frequency from the transmission frequency (A). However, since the conventional repeater of Fig. 1 assigns a different frequency to each of the repeaters 102 to 105 to solve the weak signal problem for the signal received from the main transmitter 101 or to increase the broadcast zone, the conventional repeater is inefficient in frequency utilization in that each of the repeaters 102 to 105 uses a plurality of frequency bands which in turn utilizes a large amount of frequency resources.

Fig. 2 is a view depicting another example of the broadcasting service using the conventional repeater, and illustrates a conceptual view of the broadcasting service in which the on-channel repeater repeats using the same frequency. In other words, a main transmitter 201 transmits a broadcast signal using a transmission frequency (A), and each of the on-channel repeaters 202 to 205 repeats the broadcast signal using the same frequency as the transmission frequency (A). In order to enable the broadcasting service, a receiver should be able to distinguish from one another the broadcast signals transmitted from the main transmitter 201 and the on-channel repeaters 202 to 205 using the same frequency band.

Generally, a receiver includes an equalizer to eliminate multipath signals and the equalizer also eliminates delayed input signals having an identical frequency.

However, if signals from the main transmitter 201 and the on-channel repeaters 202 to 205 using the same frequency bandwidth are not identical, the signals become noise signals relative to each other. These noise signals cannot be eliminated by the equalizer. Furthermore, if each of signals from the main transmitter 201 and the on-channel repeaters 202 to 205 is delayed as long as a predetermined time that could not be permitted to the equalizer, the

equalizer could not eliminate the delayed signal.

Accordingly, in order to provide a digital broadcasting service using the on-channel repeater, it is required as a precondition that the output signal of the 5 on-channel repeater should be the same as the output signal of the main transmitter, and time-delaying of the two output signals should be low.

The following explanation is provided to illustrate the drawbacks occurring when a signal is repeated using the 10 conventional on-channel repeater with reference to Figs. 3 to 6.

Fig. 3 is an exemplary view illustrating a construction of a conventional RF amplification on-channel repeater.

15 As shown in Fig. 3, in the conventional RF amplification on-channel repeater, a RF broadcast signal is received from a main transmitter through a reception antenna 301 and a RF receiving unit 302, the received RF signal passes through a RF band pass filter 303 only at a 20 desired signal band, the band passed RF signal is amplified through a high power amplifying unit 304 and then transmitted through a transmission antenna 305 of the on-channel repeater over an on-channel. The RF amplification on-channel repeater has a characteristic of a low system 25 delay and a simple structure.

Fig. 4 is an exemplary view illustrating a construction of a conventional IF conversion on-channel repeater.

As shown in Fig. 4, in the conventional IF conversion 30 on-channel repeater, a RF broadcast signal is received from a main transmitter through a reception antenna 401 and a RF receiving unit 402. The received RF signal is converted into an IF signal through an IF down-converting unit 403, and the IF signal passes through the IF band pass filter 35 404 only at a desired signal band. The band passed IF

signal is converted into a RF broadcast signal through the RF up-converting unit 405, and the RF broadcast signal is amplified through a high power amplifying unit 406 and then transmitted through a transmission antenna 407. The IF 5 conversion on-channel repeater also has a low system delay and a simple structure. Further, a selection characteristic of the band pass filter is superior to that of the RF amplification on-channel repeater of Fig. 3.

Fig. 5 is an exemplary view illustrating a 10 construction of a conventional Surface Acoustic Wave (SAW) filter on-channel repeater.

As shown in Fig. 5, in the conventional SAW filter on-channel repeater, a RF broadcast signal is received from a main transmitter through a reception antenna 501 and a RF 15 receiving unit 502, and the received RF broadcast signal is converted into an IF signal through an IF down-converting unit 503. The IF signal passes through an SAW filter 504 only at a desired signal band, and the SAW filtered IF signal is converted into a RF broadcast signal through a RF 20 up-converting unit 505. The RF broad signal is amplified through a high power amplifying unit 506 and then transmitted through a transmission antenna 507. The SAW filter on-channel repeater has also a low system delay and a simple structure. Further, a selection characteristic of 25 the SAW filter is superior to that of the IF conversion on-channel repeater of Fig. 4.

Fig. 6 is an exemplary view illustrating a construction of a conventional demodulation/modulation on-channel repeater.

As shown in Fig. 6, in the conventional demodulation/modulation on-channel repeater, a RF broadcast signal is received from a main transmitter through a reception antenna 601 and a RF receiving unit 602. The received RF broadcast signal is converted into an IF signal 30 through an IF down-converting unit 603. The IF signal is 35

converted into a baseband signal through a demodulating unit 604. The noise and multi-path signals generated due to the transmission channel between the main transmitter and the on-channel repeater are removed from the converted 5 baseband signal in an equalizer unit and forward error correction (FEC) decoding unit 605. The output signal of the equalizer unit and FEC decoding unit 605 is error-correction encoded through FEC encoding unit 606. The FEC-encoded signal is converted into an IF band broadcasting 10 signal through a modulating unit 607. The converted IF signal is converted into a RF broadcast signal through a RF up-converting unit 608, and the RF broadcast signal is amplified through a high power amplifying unit 609 and then transmitted through a transmission antenna 610.

15 In the conventional on-channel repeater in Figs. 3 to 6, the characteristics of the output signals of the on-channel repeaters are inferior to those of the input signals of the on-channel repeaters since the noise and multi-path signals generated due to the transmission 20 channel between the main transmitter and the on-channel repeater, the feedback signal generated due to the low isolation of the transmission/reception antennas, and a system noise added from an on-channel repeater system, etc. cannot be removed. The above mentioned conventional on- 25 channel repeaters shown in Figs. 3 to 6 have drawbacks in that the transmission power of the on-channel repeater is limited due to the feedback signal generated due to the low isolation of the transmission/reception antennas.

The conventional on-channel repeater having a 30 modulating unit and a demodulating unit in Fig. 6 improves a function of removing a noise on the conventional on-channel repeaters in Figs. 3 to 5. However, since the conventional demodulation/modulation on-channel repeater in Fig. 6 includes a FEC decoding unit and a FEC encoding 35 unit, the time delay in the on-channel repeater is

increased from few microseconds to few milliseconds. Since the output signal generated due to ambiguity of a general standard trellis encoder of Fig. 6 is recognized as a noise, the on-channel repeater does not remove the output 5 signal generated due to ambiguity.

Accordingly, an on-channel repeater is required for solving the above-mentioned drawbacks, that is, for allowing the output signal thereof to be the same as the output signal of the main transmitter, for allowing low 10 time-delaying of the two output signals, for removing the noise and multi-path signals generated due to the transmission channel between the main transmitter and the on-channel repeater so that the on-channel repeater has a superior characteristic of the output signal to that of the 15 input signal, and for removing the feedback signal generated due to the low isolation of the transmission/transmission/reception antennas so that the transmission output power of the on-channel repeater can be increased.

20 Disclosure of the Invention

It is, therefore, an object of the present invention to provide an on-channel repeater and method, for repeating the same output signal as an input signal of the on-channel repeater over an on-channel by converting a RF broadcast 25 signal transmitted from a main transmitter into a baseband signal, removing noise and multi-path signals generated due to a transmission channel between the main transmitter and the on-channel repeater and a feedback signal generated due to low isolation of transmission/reception antennas, from 30 the converted baseband signal through a high performance equalizer, and then again converting the baseband signal into a RF broadcast signal.

In accordance with one aspect of the present invention, there is provided an on-channel repeating 35 apparatus for repeating a signal over an on-channel, the

on-channel repeating apparatus including: a receiving unit for receiving a Radio Frequency (RF) broadcast signal; a demodulating unit for converting the RF signal into a baseband signal; an equalizing unit for equalizing the 5 baseband signal to generate an equalized baseband signal; a modulating unit for converting the equalized baseband signal into an RF signal; and a transmitting unit for transmitting the RF signal.

In accordance with another aspect of the present 10 invention, there is provided an on-channel repeating method of repeating a signal over an on-channel, the on-channel repeating method including the steps of: a) receiving a Radio Frequency (RF) broadcast signal; b) converting the RF signal into a baseband signal; c) equalizing the baseband 15 signal to generate an equalized baseband signal; d) converting the equalized baseband signal into an RF signal; and e) transmitting the RF signal.

Brief Description of the Drawings

20 The above and other objects and features of the present invention will become apparent from the following description of the preferred embodiments given in conjunction with the accompanying drawings, in which:

25 Fig. 1 is a view depicting an example of a broadcasting service using a conventional repeater;

Fig. 2 is a view depicting another example of a broadcasting service using a conventional repeater;

30 Fig. 3 is an exemplary view illustrating a construction of a conventional RF amplification on-channel repeater;

Fig. 4 is an exemplary view illustrating a construction of a conventional IF conversion on-channel repeater;

35 Fig. 5 is an exemplary view illustrating a construction of a conventional SAW filter on-channel

repeater;

Fig. 6 is an exemplary view illustrating a construction of a conventional demodulation/modulation on-channel repeater;

5 Fig. 7 is a diagram illustrating an on-channel repeater in accordance with a preferred embodiment of the present invention;

Fig. 8 is a diagram illustrating an on-channel repeater in accordance with another preferred embodiment of  
10 the present invention;

Fig. 9 is a diagram illustrating an on-channel repeater in accordance with another preferred embodiment of the present invention;

Fig. 10 is a diagram illustrating an on-channel repeater in accordance with another preferred embodiment of  
15 the present invention;

Fig. 11 is a diagram illustrating an on-channel repeater in accordance with another preferred embodiment of the present invention;

20 Fig. 12 is a flow chart illustrating a repeating method of an on-channel repeater in accordance with a preferred embodiment of the present invention;

Fig. 13 is a flow chart illustrating a repeating method of an on-channel repeater in accordance with another  
25 preferred embodiment of the present invention;

Fig. 14 is a flow chart illustrating a repeating method of an on-channel repeater in accordance with another preferred embodiment of the present invention;

30 Fig. 15 is a flow chart illustrating a repeating method of an on-channel repeater in accordance with another preferred embodiment of the present invention; and

Fig. 16 is a view illustrating a construction of an equalizing unit of an on-channel repeater in accordance with a preferred embodiment of the present invention.

Modes for carrying out the invention

Fig. 7 is a diagram illustrating an on-channel repeater in accordance with a preferred embodiment of the present invention.

5 As shown, the on-channel repeater includes an RF receiving unit 701A for receiving a radio frequency (RF) signal, a demodulating unit 702A for converting the RF signal into a baseband signal, an equalizing unit 703A for compensating distortion of the baseband signal, a  
10 modulating unit 704A for converting the signal from the equalizing unit 703A to an RF signal, and an RF transmitting unit 705A for transmitting the RF signal.

Hereinafter, the on-channel repeater will be described in detail.

15 The RF receiving unit 701A receives a radio frequency (RF) signal from a main transmitter. The demodulating unit 702A converts the RF signal into a baseband signal. The equalizing unit 703A removes noise and multi-path signals generated between the main transmitter and the on-channel  
20 repeater and a feedback signal from the converted baseband signal. The modulating unit 704A converts the baseband signal outputted from the equalizing unit 703A into an RF signal. The RF transmitting unit 705A transmits the RF signal.

25 Fig. 12 is a flow chart illustrating a repeating method of an on-channel repeater in Fig. 7 in accordance with a preferred embodiment of the present invention.

An RF signal from a main transmitter is received at step 801A, the RF signal is converted into a baseband  
30 signal at step 802A.

The noise and multi-path signals generated between the main transmitter and the on-channel repeater and a feedback signal generated due to the low isolation of the reception/transmission antennas of the on-channel repeater  
35 are removed from the baseband signal at step 803A. The

baseband signal of which the noise, the multi-path signal and the feedback signal are removed is converted into an RF signal and transmitted at steps 804A and 805A.

Fig. 8 is a diagram an on-channel repeater in accordance with another preferred embodiment of the present invention.

As shown, the on-channel repeater includes a reception antenna 701B, a RF receiving unit 702B, an IF down-converting unit 703B, a demodulating unit 704B, an 10 equalizing unit 705B, a modulating unit 706B, a RF up-converting unit 707B, a high power amplifying unit 708B, a transmission antenna 709B and a local oscillator (LO) 710B.

The RF receiving unit 702B receives a radio frequency (RF) broadcast signal from a main transmitter through a 15 reception antenna 701B. The IF down-converting unit 703B converts the received RF broadcast signal into an intermediate frequency (IF) signal based on a first reference frequency. The demodulating unit 704B converts the IF signal into a baseband signal. The equalizing unit 20 705B equalizes the baseband signal and compensates distortion on the transmission channel. The modulating unit 706B converts the baseband signal outputted from the equalizing unit 705B into an IF signal. The RF up-converting unit 707B converts the converted IF signal into 25 a RF broadcast signal based on a second reference frequency. The high power amplifying unit 708B amplifies and repeats the converted RF broadcast signal. The transmission antenna 709B transmits the broadcast signal outputted from the high power amplifying unit 708B. The 30 local oscillator (LO) 710B generates the first reference frequency and the second reference frequency, and provides the first reference frequency to the IF down-converting unit 703B, and the second reference frequency to the RF up-converting unit 707B.

Fig. 13 is a flow chart illustrating a repeating

method of the on-channel repeater of Fig. 8 in accordance with a preferred embodiment of the present invention.

As shown in Fig. 13, in the repeating method of the on-channel repeater in accordance with the present invention, the RF broadcast signal is received from the main transmitter at step 801B, and the received RF broadcast signal is converted into the IF signal at step 802B.

Next, the IF signal is converted into the baseband signal at step 803B, and the noise and multi-path signals generated due to the transmission channel between the main transmitter and the on-channel repeater and the feedback signal generated due to the low isolation of the transmission/reception antennas are removed from the baseband signal at step 804B.

And then, the baseband signal without the noise and multi-path signals and the feedback signal is converted into an IF band broadcast signal at step 805B, and the IF signal is converted into the RF signal at step 806B. The RF signal is amplified and transmitted at step 807B.

Fig. 9 is a diagram an on-channel repeater in accordance with another preferred embodiment of the present invention.

As shown, the on-channel repeater includes a reception antenna 700C, a RF receiving unit 710C, an IF down-converting unit 720C, a demodulating unit 730C, an equalizing unit 740C, a modulating unit 750C, a RF up-converting unit 760C, a high power amplifying unit 770C, a transmission antenna 780C and a local oscillator (LO) 790C.

The RF receiving unit 710C receives a RF (Radio Frequency) broadcast signal from a main transmitter through a reception antenna 700C. The IF down-converting unit 720C converts the received RF broadcast signal into an intermediate frequency (IF) signal based on a first reference frequency. The demodulating unit 730C converts

the IF signal into a baseband signal.

The equalizing unit 740C equalizes the converted baseband signal to generate an equalized baseband signal. The modulating unit 750B converts the equalized baseband signal outputted from the equalizing unit 740C into an IF signal. The RF up-converting unit 760C converts the IF signal into a RF broadcast signal based on a second reference frequency. The high power amplifying unit 770C amplifies and repeats the converted RF broadcast signal. 10 The transmission antenna 780C transmits the RF broadcast signal outputted from the high power amplifying unit 770C.

The local oscillator (LO) 790C generates the first reference frequency and the second reference frequency, and provides the first reference frequency to the IF down-converting unit 720C, and the second reference frequency to the RF up-converting unit 760C. 15

Fig. 14 is a flow chart illustrating a repeating method of the on-channel repeater in Fig. 9 in accordance with a preferred embodiment of the present invention.

20 The RF receiving unit 710C receives the RF broadcast signal from the main transmitter through the reception antenna 700C at step 801C, and the IF down-converting unit 720C converts the RF broadcast signal into the IF signal based on a first reference frequency provided from the 25 local oscillator 790C at step 802C.

Next, the demodulating unit 730C demodulates the IF signal to generate a baseband signal, extracts the carrier frequency and the sampling timing error to be provided to the modulating unit 750C at step 803C. The equalizing unit 30 740C equalizes the baseband signal, compensates signal distortion generated in the transmission channel, and removes the feedback signal due to the low isolation of the transmission/reception antennas of the on-channel repeater, to thereby generate an equalized baseband signal at step 35 804C.

The modulating unit 750C modulates the equalized baseband signal based on the carrier frequency and the timing offset to generate an IF signal at step 805C, and the RF up-converting unit 760C converts the IF signal into 5 the RF signal based on the second reference frequency provided from the local oscillator 790C at step 806C.

The RF signal is amplified by the high power amplifying unit 770C and transmitted by the transmission antenna at step 807C.

10 A frequency and a phase of the signal received from the main transmitter should be synchronized with those of the signal to be transmitted through the transmission antenna 780C of the on-channel repeater.

15 A method for synchronizing the frequency and the phase with the signals will be described as follows.

The RF signal received from the main transmitter through the RF receiving unit 710C is converted to an IF signal by the IF down-converting unit 720C based on the first reference frequency provided from the local 20 oscillator 790C, and converted to a baseband signal by the demodulating unit 730C.

The demodulating unit 730C having a carrier restoring unit extracts the carrier frequency and the sampling timing error, to thereby generate the carrier frequency and the 25 sampling timing offset of the RF signal.

The modulating unit 750C converts the baseband signal to an IF signal based on the carrier frequency and the sampling timing error, so that the IF signal is generated regarding the error of the RF signal received from the main 30 transmitter.

The IF signal modulated based on the carrier frequency and the timing error is converted to an RF signal by the RF up-converting unit 760C based on the second reference frequency provided from the LO 790C and transmitted.

35 As described above, since the transmission signal to

be transmitted from the on-channel repeater is modulated based on the frequency and timing error, the frequency and the phase of the output signal of the on-channel repeater can be allowed to be frequency-and-phase synchronized with 5 those of the signal generated from the main transmitter even without a separate reference signal.

Fig. 10 is a diagram illustrating an on-channel repeater in accordance with another preferred embodiment of the present invention.

10 As shown, the on-channel repeater includes a reception antenna 700D, a RF receiving unit 710D, an IF down-converting unit 720D, a demodulating unit 730D, an equalizing unit 740D, a modulating unit 750D, a high power amplifying unit 760D, a transmission antenna 770D and a 15 local oscillator (LO) 780D.

The RF receiving unit 710D receives a RF (Radio Frequency) broadcast signal from a main transmitter through a reception antenna 700D. The IF down-converting unit 720D converts the received RF broadcast signal into an 20 intermediate frequency (IF) signal based on a first reference frequency. The demodulating unit 730D converts the IF signal into a baseband signal, extracts a carrier frequency and a sampling timing error and generates frequency and timing offset to be provided to the 25 modulating unit 750D.

The equalizing unit 740D equalizes the baseband signal to generate an equalized baseband signal. The modulating unit 750D converts the equalized baseband signal outputted from the equalizing unit 740D into an RF signal. The high 30 power amplifying unit 760D amplifies and repeats the converted RF broadcast signal. The transmission antenna 770D transmits the broadcast signal outputted from the high power amplifying unit 760D.

The local oscillator (LO) 780D generates the first 35 reference frequency and the second reference frequency, and

provides the first reference frequency to the IF down-converting unit 720D, and the second reference frequency to the modulating unit 750D.

Fig. 15 is a flow chart illustrating a repeating 5 method of the on-channel repeater in Fig. 10 in accordance with a preferred embodiment of the present invention.

The RF receiving unit 710D receives the RF broadcast signal from the main transmitter through the reception antenna 700D at step 801D, and the IF down-converting unit 10 720D converts the RF broadcast signal into the IF signal based on a first reference frequency provided from the local oscillator 780D at step 802D.

Next, the demodulating unit 730D demodulates the IF signal to generate a baseband signal, extracts the carrier 15 frequency and the sampling timing error to be provided to the modulating unit 750D at step 803D. The equalizing unit 740D equalizes the baseband signal, compensates signal distortion generated in the transmission channel, and removes the feedback signal due to the low isolation of the 20 transmission/reception antennas of the on-channel repeater, to thereby generate an equalized baseband signal at step 804D.

The modulating unit 750D modulates the equalized baseband signal based on the carrier frequency and the 25 timing offset to generate an RF signal based on the second reference frequency provided from the local oscillator 780D at step 805D.

The RF signal is amplified by the high power amplifying unit 760D and transmitted by the transmission 30 antenna at step at step 806D.

A method for synchronizing a frequency and a phase of the signal received from the main transmitter with those of the signal to be transmitted through the transmission antenna 770D of the on-channel repeater is similar to the 35 method described with reference to Fig. 10, which will be

described.

The RF signal received from the main transmitter through the RF receiving unit 710D is converted to an IF signal by the IF down-converting unit 720D based on the 5 first reference frequency provided from the local oscillator 780D, and converted to a baseband signal by the demodulating unit 730D.

The demodulating unit 730D having a carrier restoring unit extracts the carrier frequency and the sampling timing 10 error, to thereby generate the carrier frequency and the sampling timing offset of the RF signal.

The modulating unit 750D converts the baseband signal to an RF signal based on the carrier frequency, the sampling timing error and the second reference frequency 15 provided from the LO 780D.

Fig. 11 is a diagram illustrating an on-channel repeater in accordance with another preferred embodiment of the present invention. The on-channel repeater synchronizes a frequency of a received signal with that of a 20 transmission signal based on a global positioning system (GPS) signal. Elements of the on-channel repeater are similar to the on-channel repeaters in Figs. 8 and 9 except for a GPS receiving unit 800E.

The GPS receiving unit 800E divides a GPS reference 25 signal and provides divided GPS reference signals to an analog-to-digital converter of a demodulating unit 730E and a digital-to-analog converter of a modulating unit 750E. Also, the GPS receiving unit 800E provides the divided GPS reference signal to a local oscillator (LO) 790E, the LO 30 790E provides a reference frequency to an IF down-converting unit 720E and an RF up-converting unit 760E.

The main transmitter receives the same GPS reference signal as the GPS reference signal received by the on-channel repeater, converts the digital broadcast signal to 35 the analog broadcast signal and the converted analog

broadcast signal to the RF broadcast signal based on the GPS reference signal.

Therefore, a frequency of the signal received from the main transmitter is identical to that of the signal to be 5 transmitted through the transmission antenna 780E of the on-channel repeater. However, the GPS receiving unit should be additionally mounted on the on-channel repeater and the main transmitter.

In the on-channel repeater in accordance with the 10 present invention the output signal has better characteristics than that of the input signal since the noise and multi-path signals generated due to the transmission channel between the main transmitter and the on-channel repeater are removed using the high performance 15 equalizer. Further, the invented on-channel repeater has an increased transmission power since the feedback signal generated due to the low isolation of the transmission/reception antennas can be removed at the equalizer. Additionally, the invented on-channel repeater 20 has a relative low system delay.

Therefore, using the above on-channel repeater, the received signal is identical to the transmission signal, and time delay between the received signal and the transmission signal is small. The transmission signal has 25 better characteristics than the received signal, because the noise and multi-path signals generated due to the transmission channel between the main transmitter and the on-channel repeater are removed. Further, the on-channel repeater has an increased transmission power, since the 30 feedback signal generated due to the low isolation of the transmission/reception antennas can be removed at the equalizer.

Fig. 16 is an exemplary view illustrating a construction of the equalizing unit of the on-channel 35 repeater in accordance with a preferred embodiment of the

present invention. In the present invention, it is not limited to the equalizing unit illustrated in Fig. 16. In other words, various equalizing units, e.g., a Viterbi decoder, a soft output Viterbi Algorithm (SOVA) decoder, a 5 slicer can be used for the on-channel repeater in accordance with the present invention.

Referring to Fig. 16, the equalizing unit of the on-channel repeater in accordance with the present invention includes a main filtering unit 900, a modified viterbi 10 decoder 910, a statistical data computing unit 920, a switching unit 930, an error signal calculating unit 940, an input-to-equalizer signal storing unit 950, a Feed Forward Filtering (FFF) tap coefficient renewing unit 960 and a Feed Backward Filtering (FBF) tap coefficient 15 renewing unit 970.

The main filtering unit 900 performs channel equalization by repetitively filtering the signal input or applied from the demodulating unit.

The modified viterbi decoder 910 detects a symbol from 20 a digital broadcast signal received from the main filtering unit 900 by using a modified viterbi decoding algorithm with a Trace Back Depth TBD of 1 being to reduce complexity.

The statistical data computing unit 920 computes 25 necessary statistical data in a blind mode.

The switching unit 930 selects an output signal in a decision directed mode or a blind mode.

The error signal calculating unit 940 compares an output signal  $y[k]$  of the main filtering unit 900 with an 30 output signal  $\hat{d}[k]$  of the modified viterbi decoder 910 or an output signal of the statistical data computing unit 920 to calculate an error signal  $e[k]$ .

The input-to-equalizer signal storing unit 950 stores a signal input from the demodulating unit.

The Feed Forward Filtering FFF tap coefficient renewing unit 960 renews a tap coefficient  $b_i$  applied to the Feed Forward Filtering unit FFF 901 by using the output signal of the input-to-equalizer signal storing unit 950 and the calculated error signal  $e[k]$ .

The FBF tap coefficient renewing unit 970 renews the tap coefficient  $a_i$  applied to the feedback filtering unit FBF 902 by using the output signal  $\hat{d}[k]$  of the modified viterbi decoder 910 and the calculated error signal  $e[k]$ .

10 Hereinafter, operations of the equalizing unit are explained in detail.

First, the main filtering unit 900 performs the channel equalization by repetitively filtering the signal input or applied from an external (demodulating unit), and 15 the modified viterbi decoder 910 detects the symbol from the digital broadcast signal received from the main filtering unit 900 by using the modified viterbi decoding algorithm with the TBD being one and the complexity being reduced.

20 The statistical data computing unit 920 computes the necessary statistical data in the blind mode, and the switching unit 930 selects the output signal in the decision directed mode or the blind mode.

The error signal calculating unit 940 compares the 25 output signal  $y[k]$  of the main filtering unit 900 with the output signal  $\hat{d}[k]$  of the modified viterbi decoder 910 or the output signal of the statistical data computing unit 920 to calculate the error signal  $e[k]$ .

The FFF tap coefficient renewing unit 960 renews the 30 tap coefficient  $b_i$  applied to the Feed Forward Filtering unit (FFF) 901 by using the output signal of the input-to-equalizer signal storing unit 950 and the calculated error signal  $e[k]$ , and the FBF tap coefficient renewing unit 970

renews the tap coefficient  $a_i$  applied to the feedback filtering unit (FBF) 902 by using the output signal  $\hat{d}[k]$  of the modified viterbi decoder 910 and the calculated error signal  $e[k]$ .

5       Further, in order to remove the noise signal generated due to the transmission channel between the main transmitter and the on-channel repeater, the training sequence is used as a output signal of the equalizer at a data duration having the training sequence, and the output 10 signal of the symbol detector is used as a output signal of the equalizer at a data duration not including the training sequence.

15      The equalizer used in the present invention is not limited to a certain type and may be selected based on characteristics of the transmission method and the on-channel repeating network. However, if an equalizer having a better performance is used, the performance of the on-channel repeater is better. The on-channel repeater and method thereof is appropriate for DTV broadcasting, e.g., 20 ATSC and DVB. However, the on-channel repeater and method thereof is not limited to the DTV broadcasting, and can be applied to a repeater necessary for a single frequency network.

25      Accordingly, the above on-channel repeater allows the output signal therefrom to be the same as the output signal of the main transmitter, allows the low time-delaying of the two output signals, allows the noise and multi-path signals generated due to the transmission channel between the main transmitter and the on-channel repeater to be 30 removed to have better output signal characteristics than the input signal characteristic, and allows the feedback signal generated due to the low isolation of the transmission/reception antennas to be removed therefrom to increase the transmission output power thereof.

As described above, the present invention has an effect that a usage efficiency of a limited frequency resource can be increased since the digital TV broadcasting service can be repeated through the on-channel repeater.

5 While the present invention has been described with respect to the particular embodiments, it will be apparent to those skilled in the art that various changes and modifications may be made without departing from the scope of the invention as defined in the following claims.

What is claimed is:

1. An on-channel repeating apparatus for repeating a signal over an on-channel, the on-channel repeating apparatus comprising:

5 a receiving unit for receiving a Radio Frequency (RF) broadcast signal;

a demodulating unit for converting the RF signal into a baseband signal;

10 an equalizing unit for equalizing the baseband signal to generate an equalized baseband signal;

a modulating unit for converting the equalized baseband signal into an RF signal; and

15 a transmitting unit for transmitting the RF signal.

15

2. The on-channel repeater as recited in claim 1, wherein the demodulating unit includes:

20 a frequency down-converting unit for converting the received RF broadcast signal into an intermediate frequency (IF) signal based on a first reference frequency; and

a demodulating unit for converting the converted IF signal into a baseband signal.

25 3. The on-channel repeater as recited in claim 1, wherein the modulating unit includes:

a modulating unit for converting the baseband signal outputted from the equalizing unit, into an IF signal; and

30 a frequency up-converting unit for converting the IF signal into a RF broadcast signal based on a second reference frequency.

4. An on-channel repeating method of repeating a signal over an on-channel, the on-channel repeating method comprising the steps of:

35 a) receiving a Radio Frequency (RF) broadcast signal;

- b) converting the RF signal into a baseband signal;
- c) equalizing the baseband signal to generate an equalized baseband signal;
- d) converting the equalized baseband signal into an RF signal; and
- e) transmitting the RF signal.

5. The on-channel repeating method as recited in claim 4, wherein said step b) includes the steps of:

- 10 converting the received RF broadcast signal into an intermediate frequency (IF) signal based on a first reference frequency; and
- demodulating unit for converting the converted IF signal into a baseband signal.

15

6. The on-channel repeating method as recited in claim 4, wherein said step d) includes the steps of:

- converting the baseband signal outputted from the equalizing unit, into an IF signal; and
- 20 converting the IF signal into a RF broadcast signal based on a second reference frequency.

Abstract of the Disclosure

Provided is an on-channel repeater and method thereof. The on-channel repeating apparatus includes: a receiving 5 unit for receiving a Radio Frequency (RF) broadcast signal; a demodulating unit for converting the RF signal into a baseband signal; an equalizing unit for equalizing the baseband signal to generate an equalized baseband signal; a modulating unit for converting the equalized baseband 10 signal into an RF signal; and a transmitting unit for transmitting the RF signal.

FIG. 1  
(PRIOR ART)

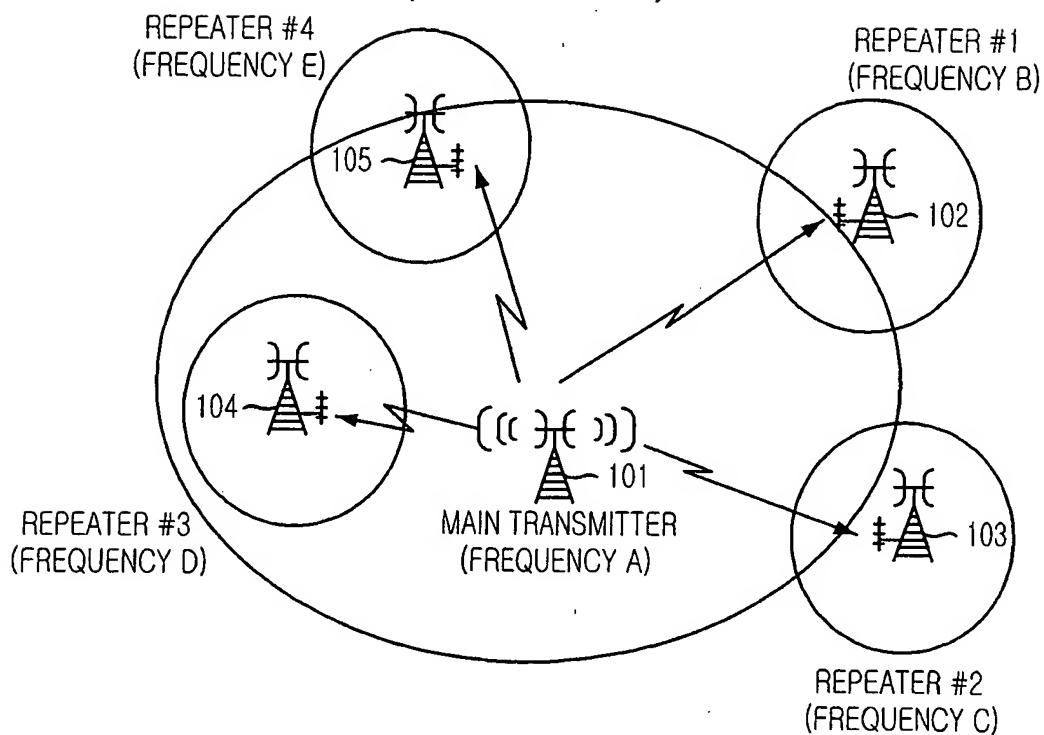


FIG. 2  
(PRIOR ART)

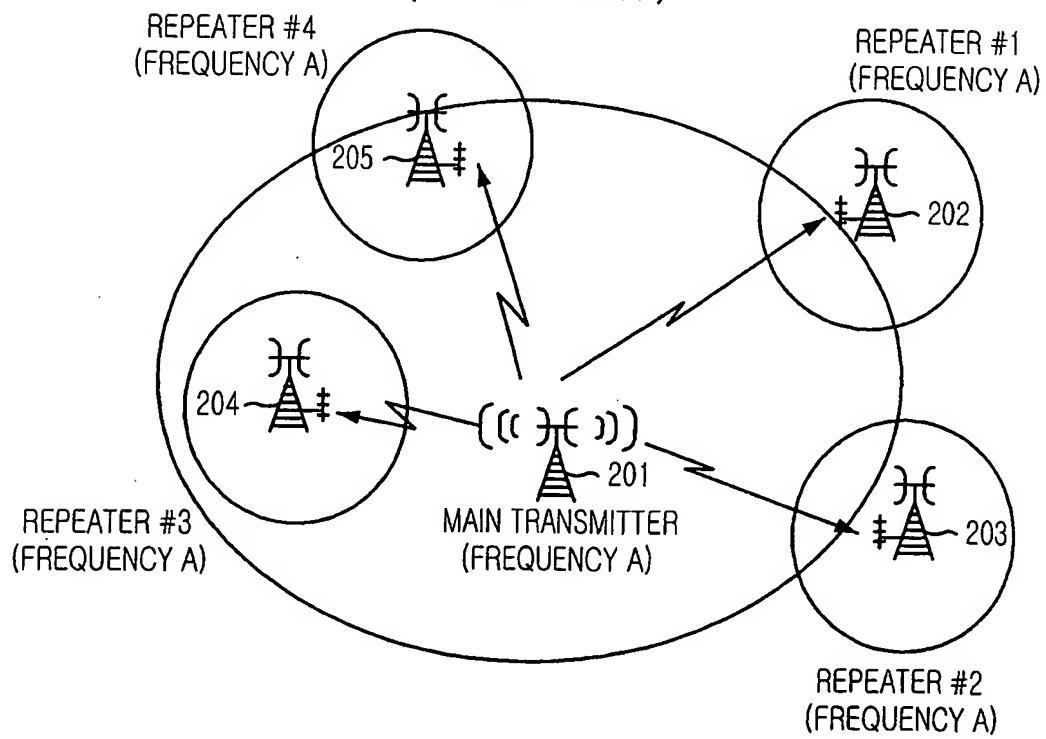


FIG. 3  
(PRIOR ART) TRANSMISSION ANTENNA

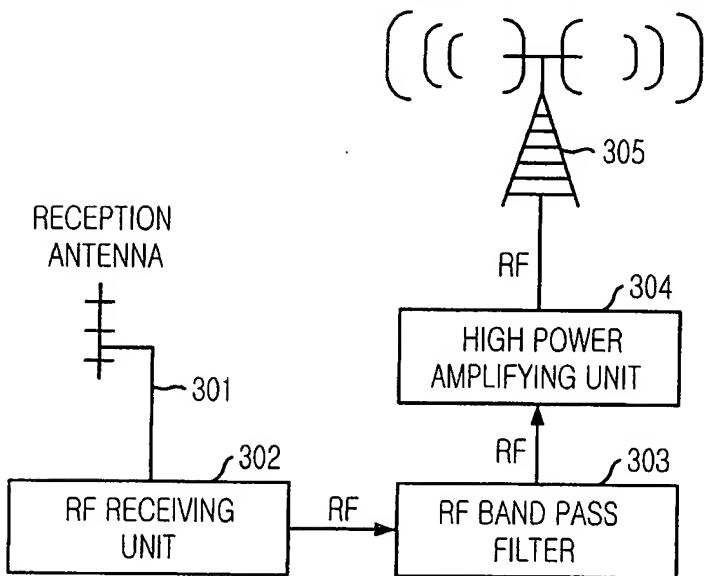


FIG. 4  
(PRIOR ART) TRANSMISSION ANTENNA

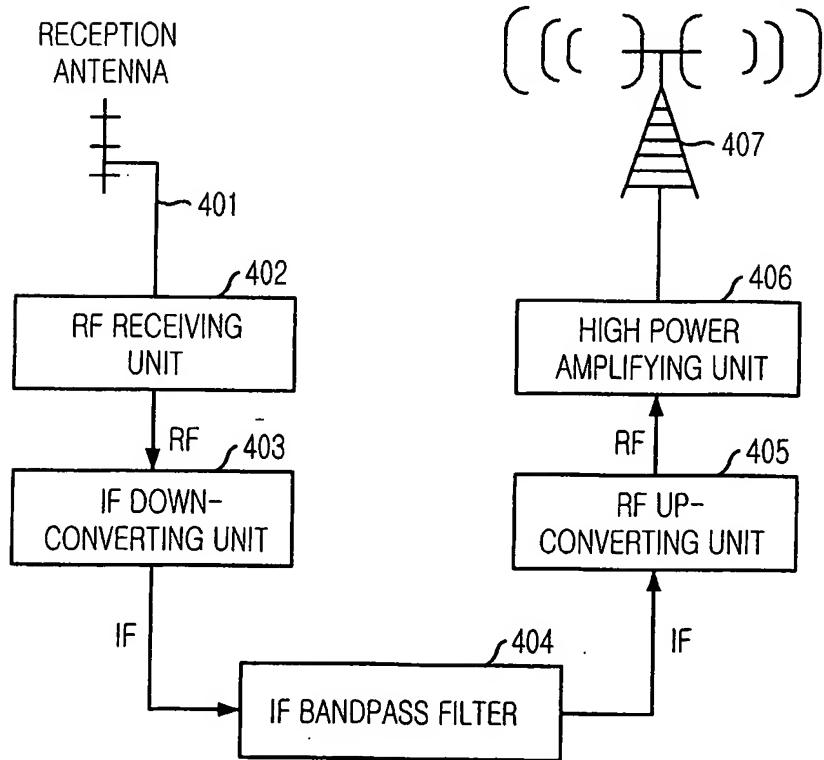


FIG. 5  
(PRIOR ART)

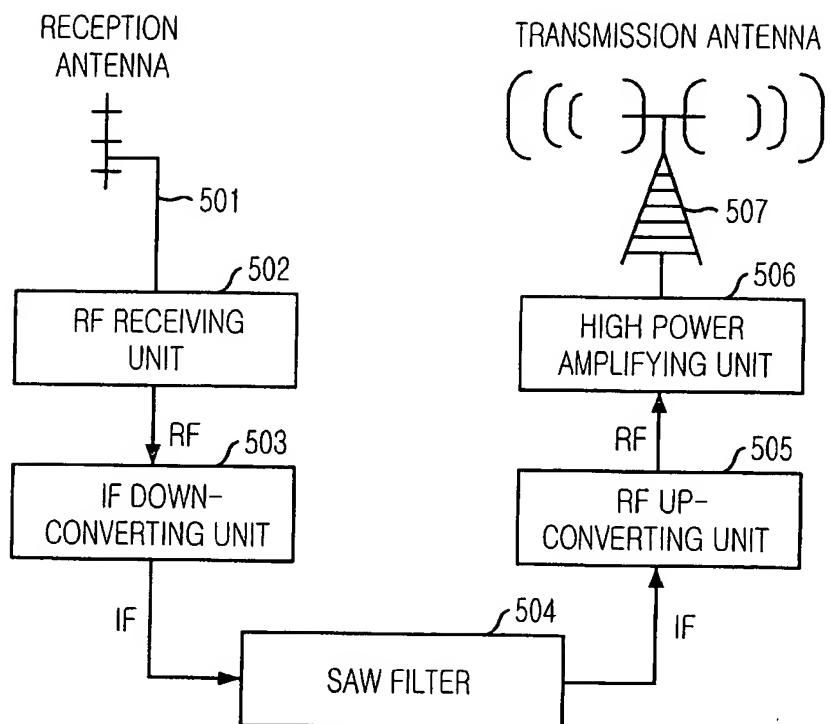


FIG. 6  
(PRIOR ART)

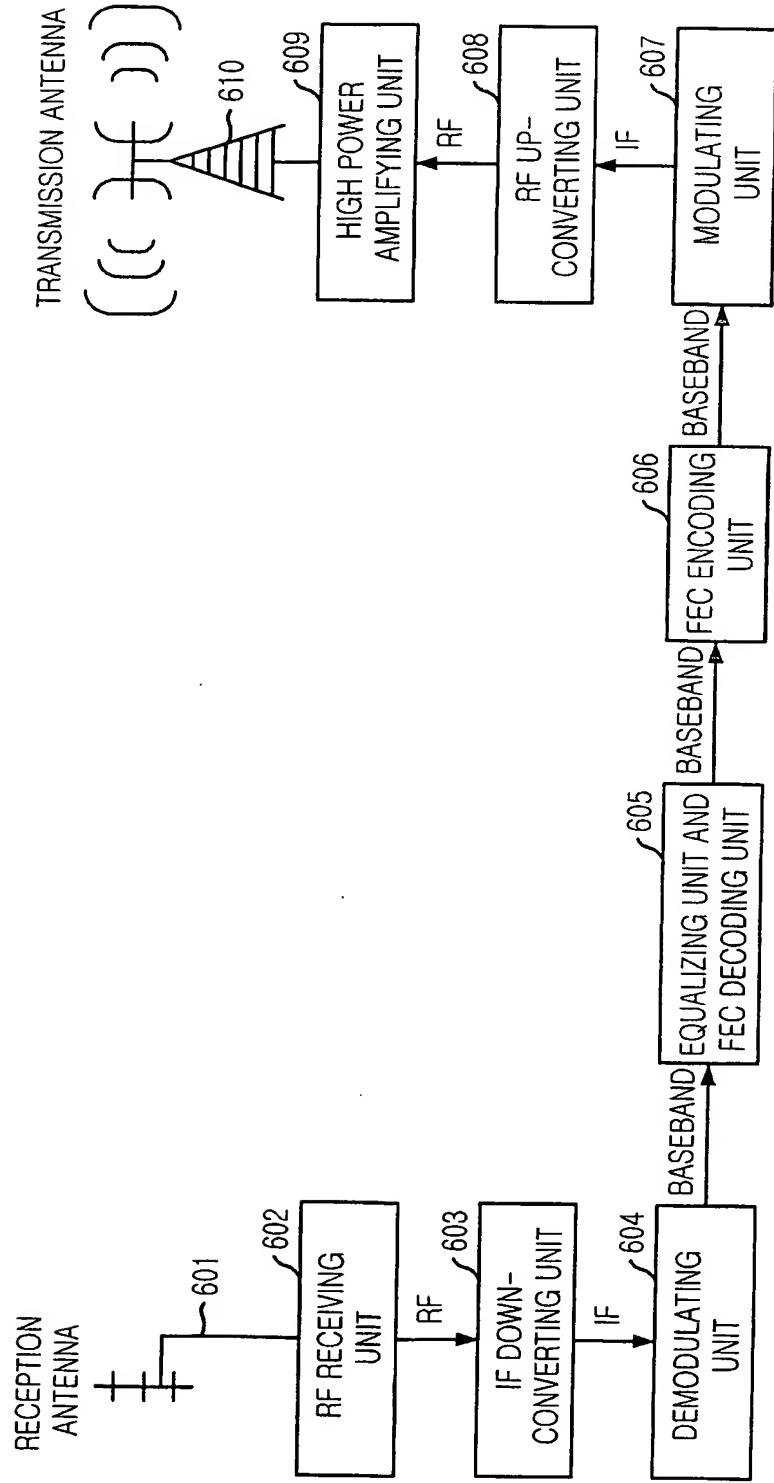


FIG. 7

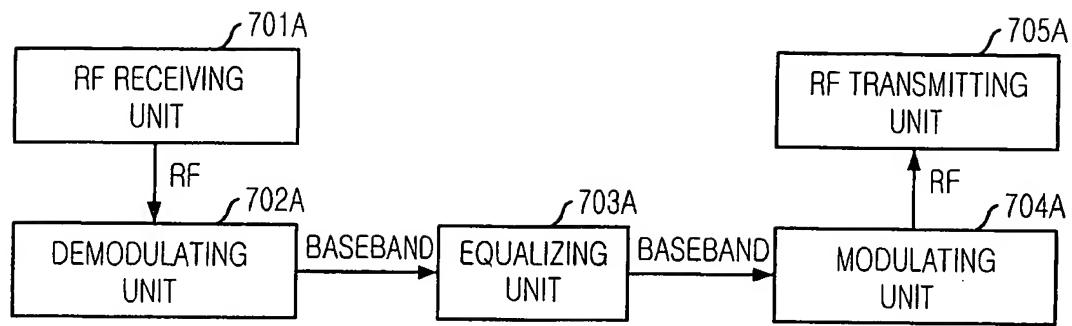


FIG. 8

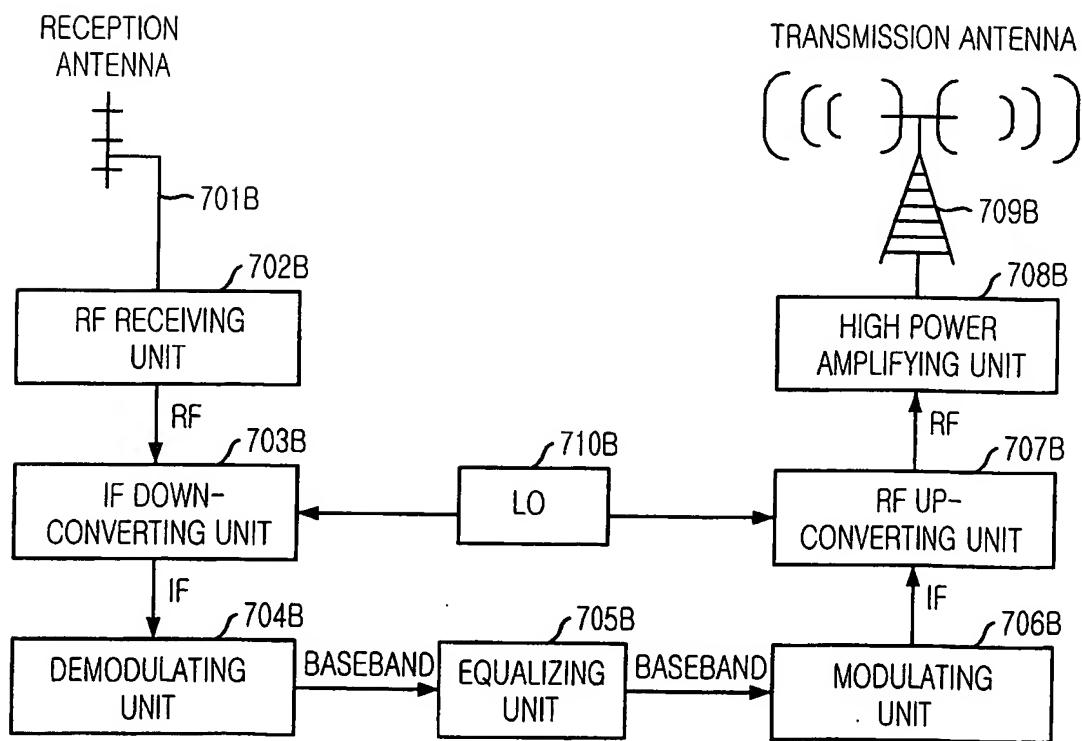


FIG. 9

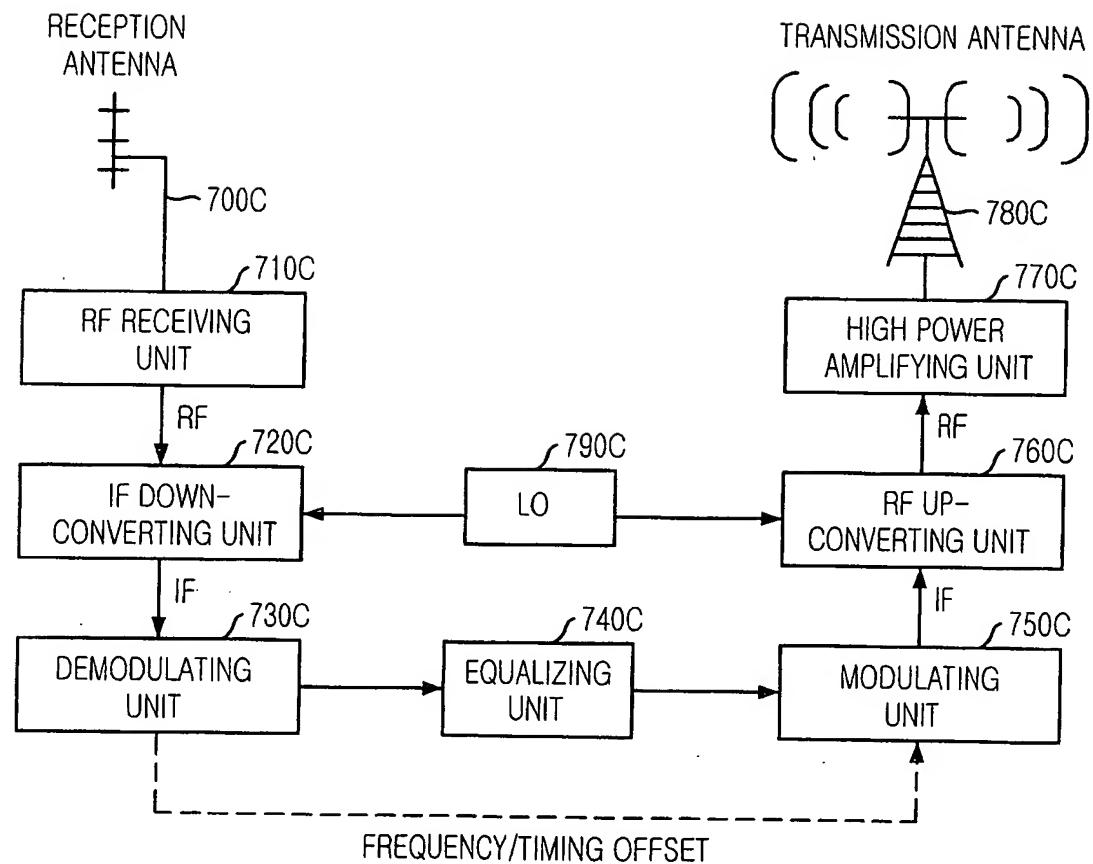


FIG. 10

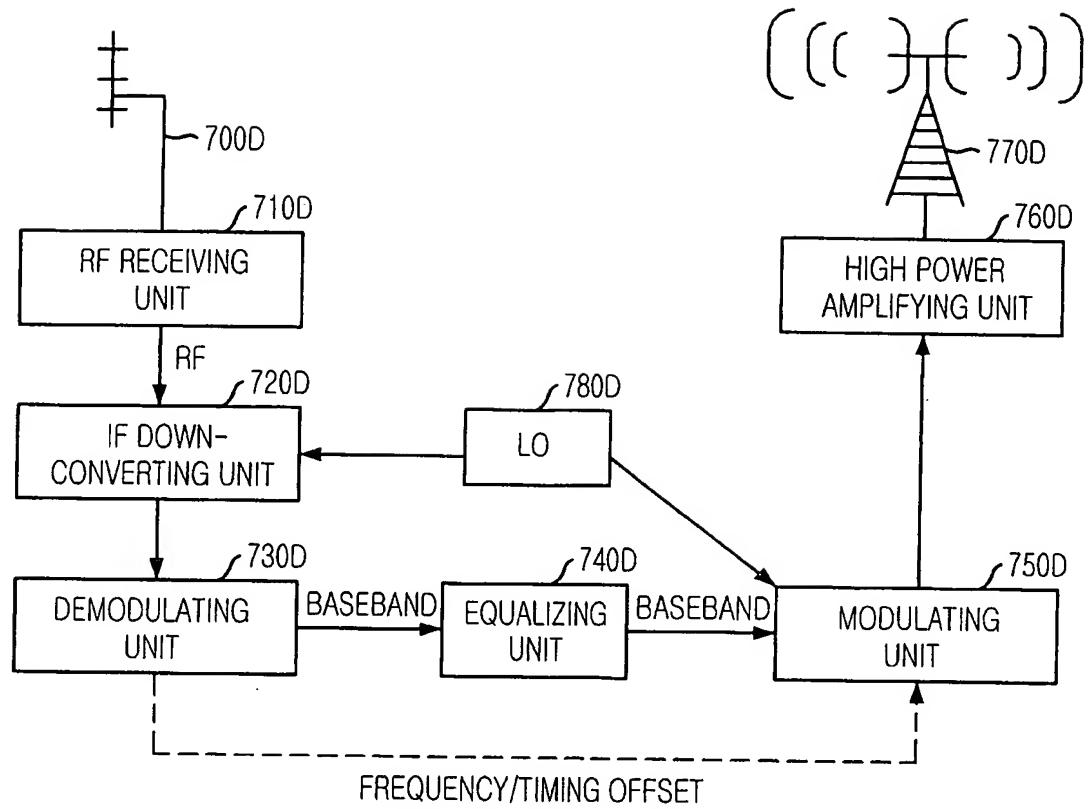


FIG. 11

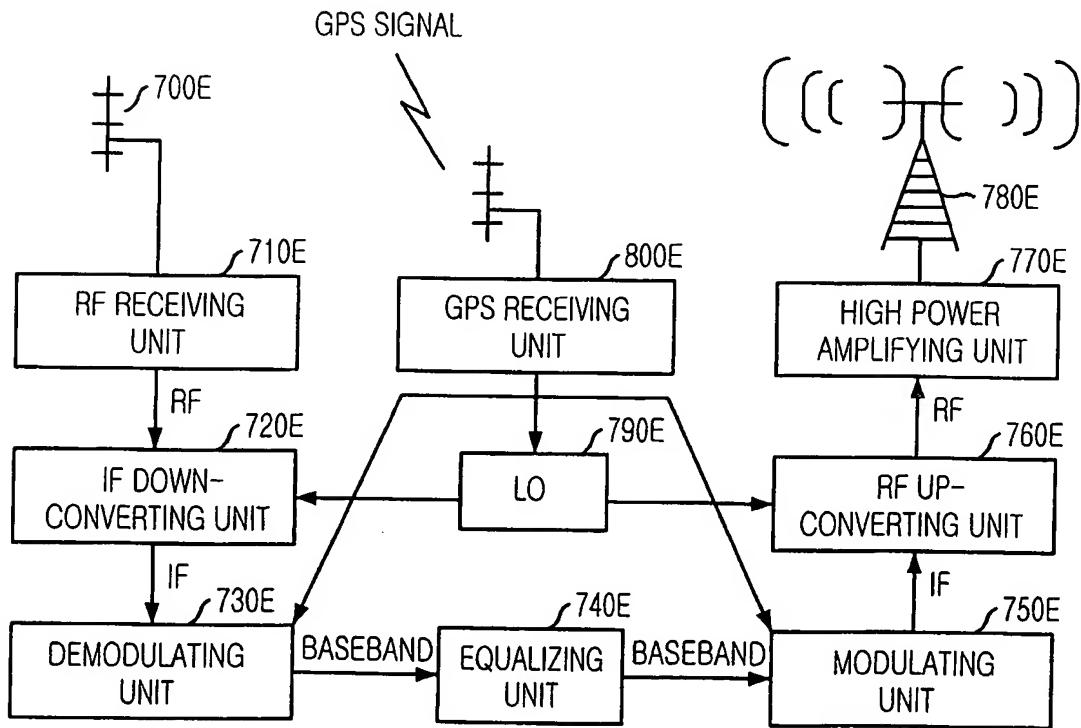


FIG. 12

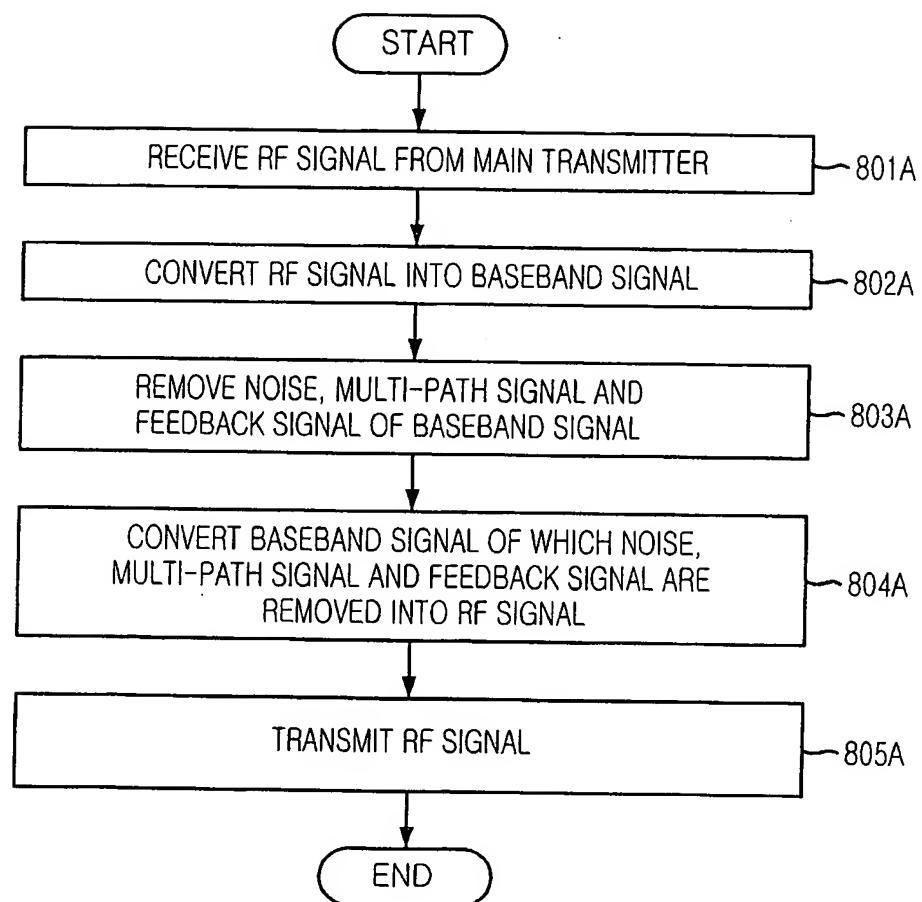


FIG. 13

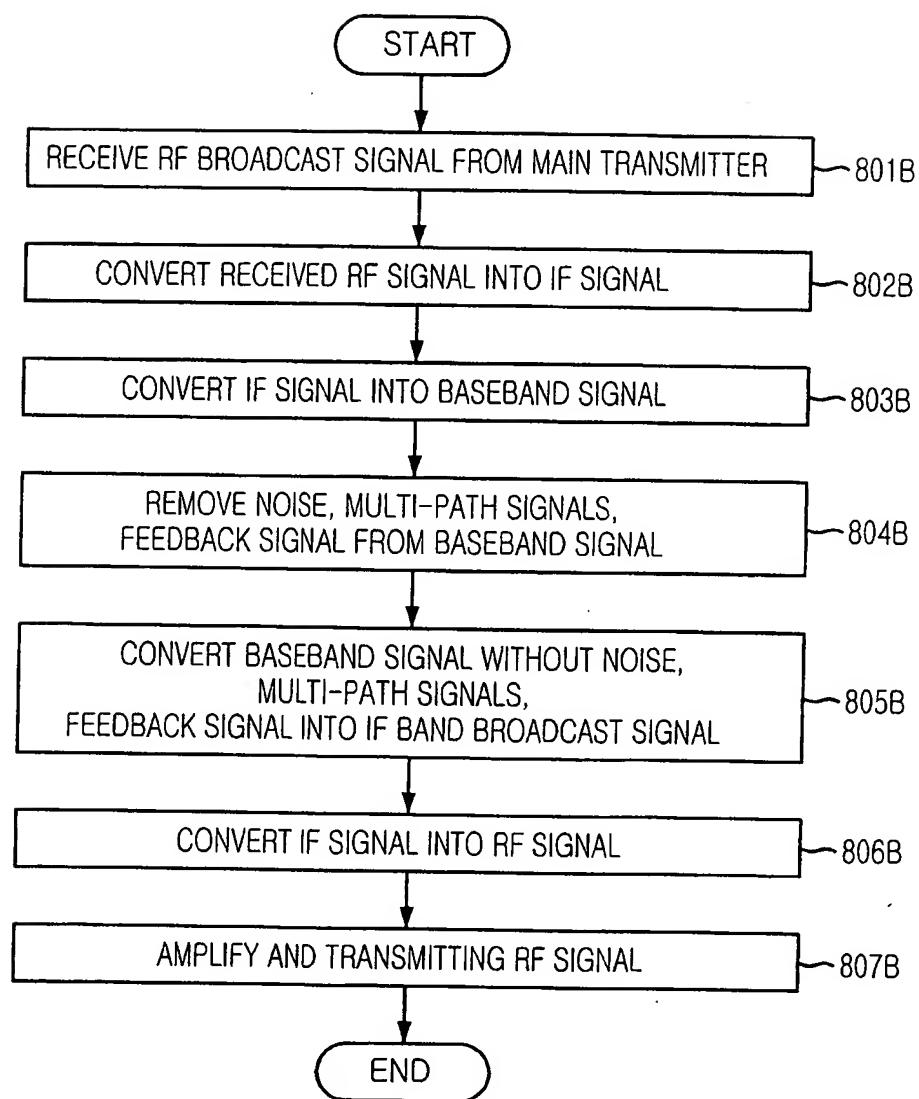


FIG. 14

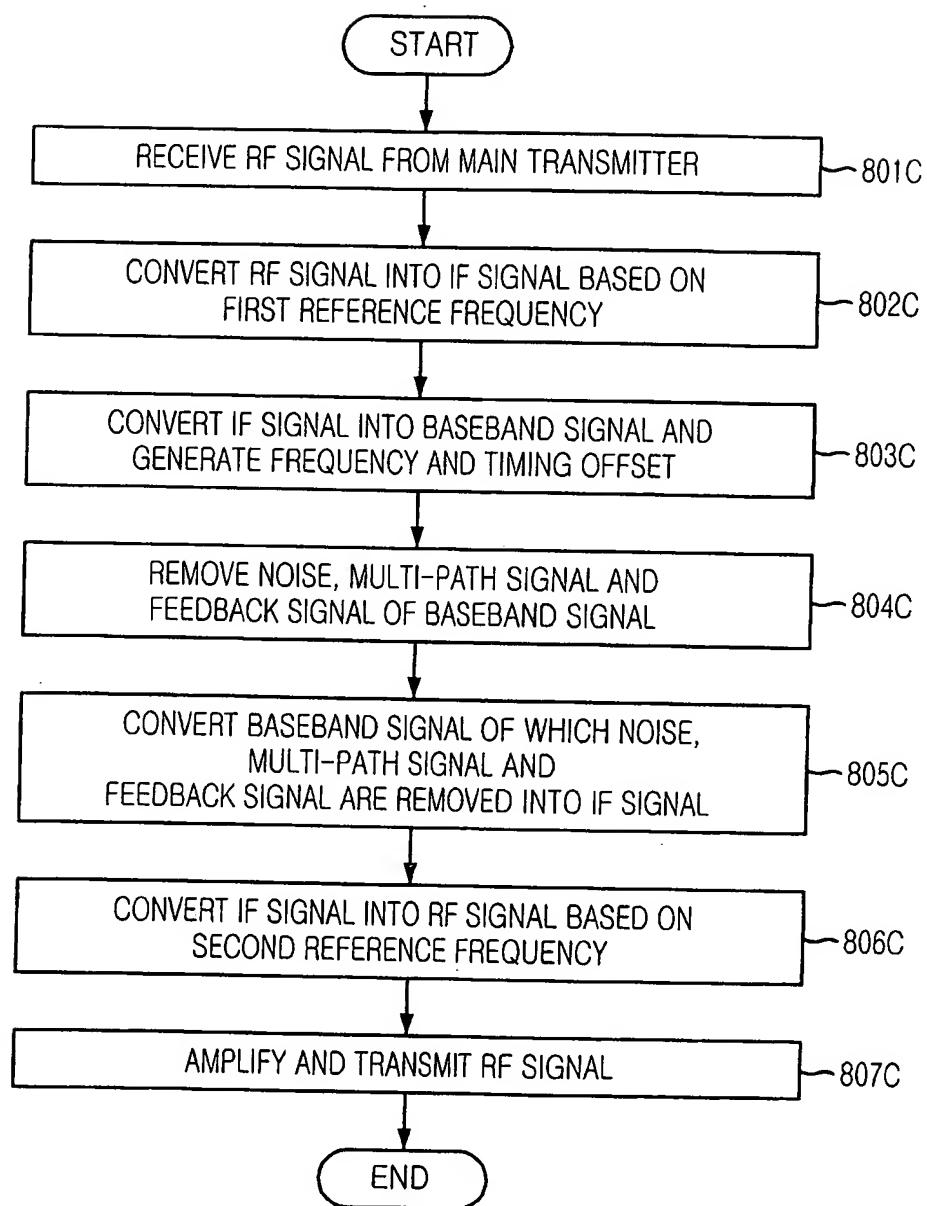


FIG. 15

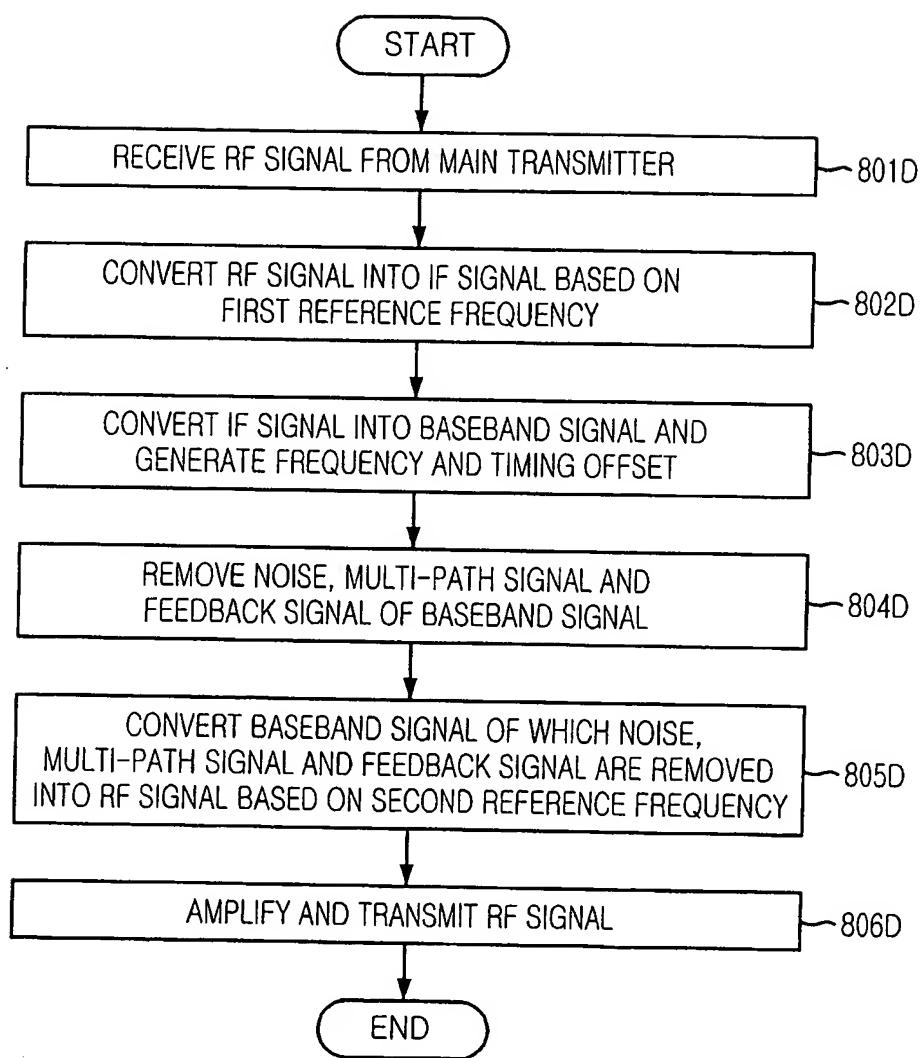
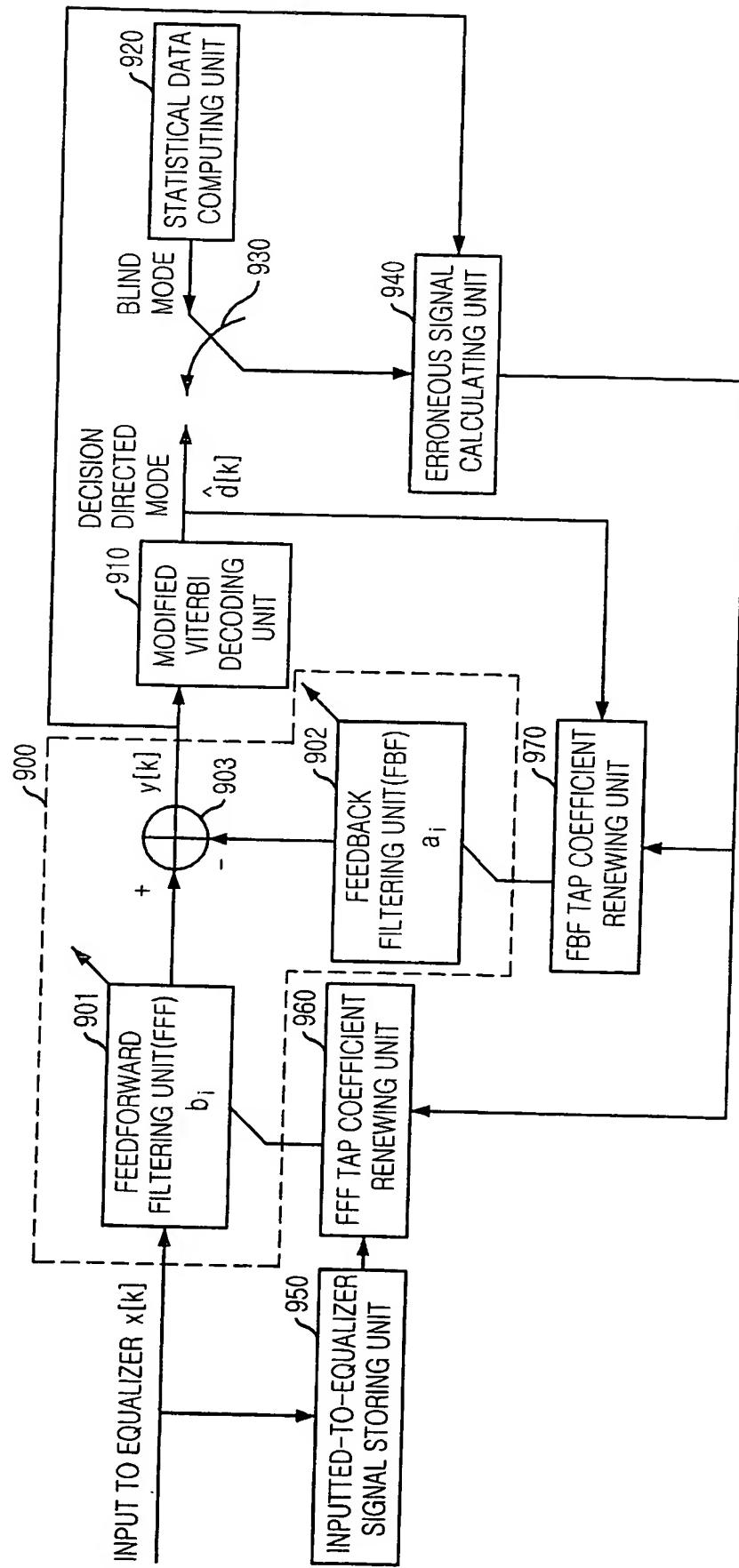


FIG. 16



Docket: CU-4801

**COMBINED DECLARATION AND POWER OF ATTORNEY***(ORIGINAL, DESIGN, NATIONAL STAGE OF PCT, SUPPLEMENTAL, DIVISIONAL,  
CONTINUATION OR CIP)*

As a below named inventor, I hereby declare that:

**TYPE OF DECLARATION**

This declaration is of the following type: *(check one applicable item below)*

- original
- design
- supplemental

*Note: If the Declaration is for an International Application being filed as a divisional, continuation or continuation-in-part application, do not check next item; check appropriate one of last three items.*

- national stage of PCT

*Note: If one of the following 3 items apply, then complete and also attach ADDED PAGES FOR DIVISIONAL, CONTINUATION OR CIP.*

- divisional
- continuation
- continuation-in-part (CIP)

**INVENTORSHIP IDENTIFICATION**

*WARNING: If the inventors are each not the inventors of all the claims, an explanation of the facts, including the ownership of all the claims at the time the last claimed invention was made, should be submitted.*

My residence, post office address and citizenship are as stated below, next to my name. I believe that I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter that is claimed, and for which a patent is sought on the invention entitled:

**TITLE OF INVENTION**

---

APPARATUS AND METHOD OF ON-CHANNEL REPEATER

---

## SPECIFICATION IDENTIFICATION

the specification of which: (*complete (a), (b) or (c)*)

- (a) is attached hereto.
- (b) was filed on April 28, 2006 as Serial No. 10/577,532.

*Note: Amendments filed after the original papers are deposited with the PTO that contain new matter are not accorded a filing date by being referred to in the Declaration. Accordingly, the amendments involved are those filed with the application papers or, in the case of a supplemental Declaration, are those amendments claiming matter not encompassed in the original statement of invention or claims. See 37 CFR 1.67.*

- (c) was described and claimed in PCT International Application No. \_\_\_\_\_  
filed on \_\_\_\_\_ and as amended under PCT Article 19 on \_\_\_\_\_  
(if any).

## ACKNOWLEDGEMENT OF REVIEW OF PAPERS AND DUTY OF CANDOR

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information, which is material to patentability as defined in 37, Code of Federal Regulations, § 1.56,

*(also check the following items, if desired)*

- and which is material to the examination of this application, namely, information where there is a substantial likelihood that a reasonable Examiner would consider it important in deciding whether to allow the application to issue as a patent, and
- in compliance with this duty, there is attached an information disclosure statement, in accordance with 37 CFR 1.98.

## PRIORITY CLAIM (35 U.S.C. § 119(a)-(d))

I hereby claim foreign priority benefits under Title 35, United States Code, § 119(a)-(d) of any foreign application(s) for patent or inventor's certificate or of any PCT international application(s) designating at least one country other than the United States of America listed below and have also identified below any foreign application(s) for patent or inventor's certificate or any PCT international application(s) designating at least one country other than the United States of America filed by me on the same subject matter having a filing date before that of the application(s) of which priority is claimed.

(complete (d) or (e))

(d) no such applications have been filed.  
 (e) such applications have been filed as follows.

*Note: Where item (c) is entered above and the international application which designated the U.S. itself claimed priority check item (e), enter the details below and make the priority claim.*

**PRIOR FOREIGN/PCT APPLICATION(S) FILED WITHIN 12 MONTHS  
(6 MONTHS FOR DESIGN) PRIOR TO THIS APPLICATION  
AND ANY PRIORITY CLAIMS UNDER 35 U.S.C. § 119(a)-(d)**

COUNTRY (OR INDICATE IF PCT)	APPLICATION NUMBER	DATE OF FILING (day/month/year)	PRIORITY CLAIMED UNDER 35 USC 119
Rep. of Korea	10-2003-0076098	29 October 2003	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/>

**CLAIM FOR BENEFIT OF PRIOR U.S. PROVISIONAL APPLICATION(S)  
(35 U.S.C. § 119(e))**

I hereby claim the benefit under Title 35, United States Code, § 119(e) of any United States provisional application(s) listed below:

PROVISIONAL APPLICATION NUMBER	FILING DATE

**ALL FOREIGN APPLICATION(S), IF ANY, FILED MORE THAN 12 MONTHS  
(6 MONTHS FOR DESIGN) PRIOR TO THIS U.S. APPLICATION**

---

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*Note: If the application filed more than 12 months from the filing date of this application is a PCT filing forming the basis for this application entering the United States as (1) the national stage or (2) a continuation, divisional, or continuation-in-part, then also complete ADDED PAGES TO COMBINED DECLARATION AND POWER OF ATTORNEY FOR DIVISIONAL, CONTINUATION OR CIP APPLICATION for benefit of the prior U.S. or PCT application(s) under 35 U.S.C. § 120.*

---

## POWER OF ATTORNEY

I hereby appoint the practitioners associated with **Customer Number 26530** to prosecute this application and transact all business in the Patent and Trademark Office connected therewith.

---

**SEND CORRESPONDENCE TO:**

**Customer Number 26530**

Richard J. Streit  
c/o Ladas & Parry LLP  
224 South Michigan Avenue  
Chicago, Illinois 60604

**DIRECT TELEPHONE CALLS TO:**

*(Name and telephone number)*

(312) 427-1300

---

## DECLARATION

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

## SIGNATURE(S)

*Note: Carefully indicate the family (or last) name, as it should appear on the filing receipt and all other documents.*

**Full name of first joint inventor**

Sung-Ik \_\_\_\_\_ (Given Name) \_\_\_\_\_ PARK \_\_\_\_\_ (Family (or Last) Name)

**Inventor's signature** \_\_\_\_\_

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**Post Office Address** \_\_\_\_\_ **146-14, Sinseong-dong, Yuseong-gu,**  
\_\_\_\_\_  
**Daejon 305-804, Republic of Korea**

---

**Full name of second joint inventor**

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(Middle Initial or Name)

LEE  
(Family (or Last) Name)

**Inventor's signature** \_\_\_\_\_

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**Residence** Daejon, Republic of Korea

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\_\_\_\_\_

**Full name of third joint inventor**

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(Middle Initial or Name)

SEO  
(Family (or Last) Name)

**Inventor's signature** \_\_\_\_\_

**Date** \_\_\_\_\_ **Country of Citizenship** Rep. of Korea

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Daejon 305-707, Republic of Korea

\_\_\_\_\_

**Full name of fourth joint inventor**

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(Given Name)

(Middle Initial or Name)

KIM  
(Family (or Last) Name)

**Inventor's signature** \_\_\_\_\_

**Date** \_\_\_\_\_ **Country of Citizenship** Rep. of Korea

**Residence** Daejon, Republic of Korea

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Daejon 305-729, Republic of Korea

\_\_\_\_\_

**Full name of fifth joint inventor**

Soo-In  
(Given Name)

(Middle Initial or Name)

LEE  
(Family (or Last) Name)

**Inventor's signature** \_\_\_\_\_

**Date** \_\_\_\_\_ **Country of Citizenship** Rep. of Korea

**Residence** Daejon, Republic of Korea

**Post Office Address** #106-606 Clover Apt., Dunsan-dong, Seo-gu,  
Daejon 302-772, Republic of Korea

\_\_\_\_\_

**Full name of sixth joint inventor**

Ho-Min

(Given Name)

(Middle Initial or Name)

EUM

(Family (or Last) Name)

**Inventor's signature**

Date \_\_\_\_\_ Country of Citizenship \_\_\_\_\_ Rep. of Korea

Residence \_\_\_\_\_ Daejon, Republic of Korea

Post Office Address \_\_\_\_\_ 145-13, Sinseong-dong, Yuseong-gu  
Daejon 305-345, Republic of Korea

## **ATTACHMENT (7)**

**TO**  
**PETITION IN SUPPORT OF JOINT INVENTORS FILING ON BEHALF OF**  
**NONSIGNING UNAVAIABLE INVENTOR UNDER 37 CFR 1.47**  
**AND**  
**REQUEST TO ADD NOT-NAMED INVENTOR UNDER 37 CFR 1.48(a)**

--

## **APPENDIX (2)**

**TO**  
**STATEMENT OF FACTS**

--

(3) A copy of the relevant page of the Korean telephone directory listing at least all of the persons having the name of Seung-Won KIM, which number 193 in all; and

(4) English translation of the relevant page of the Korean telephone directory listing at least all of the 193 Seung-Won KIMS's listed in the telephone directory including their addresses and telephone numbers.

└ These are Search result which shows all KIM, Seung-Won in the Seo-gu, Daejon.

Person's name Search (Present 1~3, All 3rd case)

KIM, Seung-Won	042-527-0916 - Galma 2-dong, Seo-gu, Daejon
KIM, Seung-Won	042-486-6318 - Dunsan 2-dong, Seo-gu, Daejon
KIM, Seung-Won	042-581-8341 - Maeno-dong, Seo-gu, Daejon

↳ These are Search result which shows all KIM, Seung-Won in the entire Country.

Person's name Search (Present 1~10, All 193rd case)

KIM, Seung-Won	054-273-0037 - Buk-gu, Pohang-si, Gyeongbuk
KIM, Seung-Won	02-508-6065 - Daechi-dong, Gangnam-gu, Seoul
KIM, Seung-Won	02-565-8137 - Daechi 3-dong, Gangnam-gu, Seoul
KIM, Seung-Won	02-511-4241 - Samseong 1-dong, Gangnam-gu, Seoul
KIM, Seung-Won	02-2051-9973 - Yeoksam-dong, Gangnam-gu, Seoul
KIM, Seung-Won	02-445-0683 - Irwon-dong, Gangnam-gu, Seoul
KIM, Seung-Won	02-545-1585 - Cheongdam-dong, Gangnam-gu, Seoul
KIM, Seung-Won	02-983-8147 - Mia 3-dong, Gangbuk-gu, Seoul
KIM, Seung-Won	02-2692-6737 - Hwagok 8-dong, Gangseo-gu, Seoul
KIM, Seung-Won	02-830-5177 - Sillim 8-dong, Gwanak-gu, Seoul

↳ These are Search result which shows all KIM, Seung-Won in the entire Country.

Person's name Search (Present 11~20, All 193rd case)

KIM, Seung-Won	02-955-9012 – Banghak 4-dong, Dobong-gu, Seoul
KIM, Seung-Won	02-963-2933 - Imun 1-dong, Dongdaemun-gu, Seoul
KIM, Seung-Won	02-584-8253 - Sadang-dong, Dongjak-gu, Seoul
KIM, Seung-Won	02-592-5535 – Sadang 3-dong, Dongjak-gu, Seoul
KIM, Seung-Won	02-702-3390 - Dohwa-dong, Mapo-gu, Seoul
KIM, Seung-Won	02-322-1484 - Mangwon-dong, Mapo-gu, Seoul
KIM, Seung-Won	02-3142-1242 - Sangsu-dong, Mapo-gu, Seoul
KIM, Seung-Won	02-716-0716 - Singongdeok-dong, Mapo-gu, Seoul
KIM, Seung-Won	02-379-7481 - Hongeun 3-dong, Seodaemun-gu, Seoul
KIM, Seung-Won	02-379-3504 - Hongje 3-dong, Seodaemun-gu, Seoul

↳ These are Search result which shows all KIM, Seung-Won in the entire Country.

Person's name Search (Present 21~30, All 193rd case)

KIM, Seung-Won	02-534-7008 - Banpo-dong, Seocho-gu, Seoul
KIM, Seung-Won	02-599-8847 - Banpo 4-dong, Seocho-gu, Seoul
KIM, Seung-Won	02-598-3915 - Seocho-dong, Seocho-gu, Seoul
KIM, Seung-Won	02-537-7654 - Seocho 4-dong, Seocho-gu, Seoul
KIM, Seung-Won	02-2210-4119 - Yongdap-dong, Seongdong-gu, Seoul
KIM, Seung-Won	02-2292-0773 - Haengdang-dong, Seongdong-gu, Seoul
KIM, Seung-Won	02-928-4842 - Donam 1-dong, Seongbuk-gu, Seoul
KIM, Seung-Won	02-960-2031 - Seokgwan 2-dong, Seongbuk-gu, Seoul
KIM, Seung-Won	02-917-8155 - Jangwi-dong, Seongbuk-gu, Seoul
KIM, Seung-Won	02-912-1408 - Hawolgok-dong, Seongbuk-gu, Seoul

↳ These are Search result which shows all KIM, Seung-Won in the entire Country.

Person's name Search (Present 31~40, All 193rd case)

KIM, Seung-Won	02-421-3241 - Bangi-dong, Songpa-gu, Seoul
KIM, Seung-Won	02-2203-1624 - Songpa-dong, Songpa-gu, Seoul
KIM, Seung-Won	02-2694-1681 - Sinjeong 4-dong, Yangcheon-gu, Seoul
KIM, Seung-Won	02-2648-8646 - Sinjeong 6-dong, Yangcheon-gu, Seoul
KIM, Seung-Won	02-2637-1085 - Mullae-dong 2-ga, Yeongdeungpo-gu, Seoul
KIM, Seung-Won	02-716-3431 - Sinchang-dong, Yongsan-gu, Seoul
KIM, Seung-Won	02-355-8375 - Nokbeon-dong, Eunpyeong-gu, Seoul
KIM, Seung-Won	02-737-5629 - Dangju-dong, Jongno-gu, Seoul
KIM, Seung-Won	062-973-6420 - Sanwol-dong, Gwangsan-gu, Gwangju
KIM, Seung-Won	062-954-0191 - Sinchang-dong, Gwangsan-gu, Gwangju

↳ These are Search result which shows all KIM, Seung-Won in the entire Country.

Person's name Search (Present 41~50, All 193rd case)

KIM, Seung-Won	062-971-9270 - Wolgye-dong, Gwangsan-gu, Gwangju
KIM, Seung-Won	062-941-7855 - Dongnim-dong, Buk-gu, Gwangju
KIM, Seung-Won	062-430-1698 - Sinan-dong, Buk-gu, Gwangju
KIM, Seung-Won	062-527-3052 - Yudong, Buk-gu, Gwangju
KIM, Seung-Won	062-269-1305 - Punghyang-dong, Buk-gu, Gwangju
KIM, Seung-Won	062-682-1834 - Geumho-dong, Seo-gu, Gwangju
KIM, Seung-Won	053-627-1433 - Daemyeong 4-dong, Nam-gu, Daegu
KIM, Seung-Won	053-581-3474 - Horim-dong, Dalseo-gu, Daegu
KIM, Seung-Won	053-961-0100 - Dongho-dong, Dong-gu, Daegu
KIM, Seung-Won	053-321-6440 - Gwaneum-dong, Buk-gu, Daegu

↳ These are Search result which shows all KIM, Seung-Won in the entire Country.

Person's name Search (Present 51~60, All 193rd case)

KIM, Seung-Won	053-744-9837 - Suseong-dong 1-ga, Suseong-gu, Daegu
KIM, Seung-Won	053-425-7879 - Dongin-dong 4-ga, Jung-gu, Daegu
KIM, Seung-Won	053-421-3955 - Samdeok-dong 1-ga, Jung-gu, Daegu
KIM, Seung-Won	042-632-7992 - Eumnae-dong, Daeok-gu, Daejon
KIM, Seung-Won	042-527-0916 - Galma 2-dong, Seo-gu, Daejon
KIM, Seung-Won	042-486-6318 - Dunsan 2-dong, Seo-gu, Daejon
KIM, Seung-Won	042-581-8341 - Maeno-dong, Seo-gu, Daejon
KIM, Seung-Won	042-541-8341 - Wonnae-dong, Yuseong-gu, Daejon
KIM, Seung-Won	042-825-0037- Jangdae-dong, Yuseong-gu, Daejon
KIM, Seung-Won	042-282-1813 - Okgye-dong, Jung-gu, Daejon

↳ These are Search result which shows all KIM, Seung-Won in the entire Country.

Person's name Search (Present 61~70, All 193rd case)

KIM, Seung-Won	051-831-6193 - Songjeong-dong, Gangseo-gu, Busan
KIM, Seung-Won	051-527-4587 - Geumsa-dong, Geumjeong-gu, Busan
KIM, Seung-Won	051-646-6004 - Munhyeon 3-dong, Nam-gu, Busan
KIM, Seung-Won	051-631-1548 - Munhyeon 4-dong, Nam-gu, Busan
KIM, Seung-Won	051-809-9757 - Yeonji-dong, Busanjin-gu, Busan
KIM, Seung-Won	051-361-2160 - Geumgok-dong, Buk-gu, Busan
KIM, Seung-Won	051-336-6552 - Deokcheon 2-dong, Buk-gu, Busan
KIM, Seung-Won	051-361-6942 - Mandeok 2-dong, Buk-gu, Busan
KIM, Seung-Won	051-862-4447 - Yeonsan 3-dong, Yeonje-gu, Busan
KIM, Seung-Won	051-702-4497 - Jwa-dong, Haeundae-gu, Busan

↳ These are Search result which shows all KIM, Seung-Won in the entire Country.

Person's name Search (Present 71~80, All 193rd case)

KIM, Seung-Won	032-548-4586 - Seoun-dong, Gyeong-gu, Incheon
KIM, Seung-Won	032-544-3200 - Jakjeon-dong, Gyeong-gu, Incheon
KIM, Seung-Won	032-556-0398 - Jakjeon Seoun-dong, Gyeong-gu, Incheon
KIM, Seung-Won	032-873-7730 - Sungui-dong, Nam-gu, Incheon
KIM, Seung-Won	032-467-7185 - Guwol 1-dong, Namdong-gu, Incheon
KIM, Seung-Won	032-466-1245 - Mansu 4-dong, Namdong-gu, Incheon
KIM, Seung-Won	032-772-1960 - Geumgok-dong, Dong-gu, Incheon
KIM, Seung-Won	032-563-7152 - Bulno-dong, Seo-gu, Incheon
KIM, Seung-Won	032-814-1628 - Dongchun 2-dong, Yeonsu-gu, Incheon
KIM, Seung-Won	032-811-9646 - Yeonsu 1-dong, Yeonsu-gu, Incheon

↳ These are Search result which shows all KIM, Seung-Won in the entire Country.

Person's name Search (Present 81~90, All 193rd case)

KIM, Seung-Won	052-261-5374 - Dal-dong, Nam-gu, Ulsan
KIM, Seung-Won	052-293-5469 - Bangu-dong, Jung-gu, Ulsan
KIM, Seung-Won	052-234-5446 - Yangjeong-dong, Buk-gu, Ulsan
KIM, Seung-Won	033-642-2685 - Gyo-dong, Gangneung-si, Gangwon-do
KIM, Seung-Won	033-648-5757 - Noam-dong, Gangneung-si, Gangwon-do
KIM, Seung-Won	033-662-5448 - Jumunjin-eup, Gangneung-si, Gangwon-do
KIM, Seung-Won	033-762-9621 - Heungeop-myeon, Wonju-si, Gangwon-do
KIM, Seung-Won	033-252-0041 - Hupyeong 3-dong, Chuncheon-si, Gangwon-do
KIM, Seung-Won	033-441-3551 - Sanae-myeon, Hwacheon-gun, Gangwon-do
KIM, Seung-Won	033-342-9443 - Anheung-myeon, Hoengseong-gun, Gangwon-do

↳ These are Search result which shows all KIM, Seung-Won in the entire Country.

Person's name Search (Present 91~100, All 193rd case)

KIM, Seung-Won	032-346-2712 - Sosa-gu, Bucheon-si, Gyeonggi-do
KIM, Seung-Won	032-671-0118 - Ojeong-gu, Bucheon-si, Gyeonggi-do
KIM, Seung-Won	032-671-9995 - Wonmi-gu, Bucheon-si, Gyeonggi-do
KIM, Seung-Won	032-662-1326 - Wonmi-gu, Bucheon-si, Gyeonggi-do
KIM, Seung-Won	032-325-6875 - Wonmi-gu, Bucheon-si, Gyeonggi-do
KIM, Seung-Won	032-321-1717 - Wonmi-gu, Bucheon-si, Gyeonggi-do
KIM, Seung-Won	032-345-7247 - Wonmi-gu, Bucheon-si, Gyeonggi-do
KIM, Seung-Won	031-704-0161 - Bundang-gu, Seongnam-si, Gyeonggi-do
KIM, Seung-Won	031-713-6222 - Sujeong-gu, Seongnam-si, Gyeonggi-do
KIM, Seung-Won	031-225-7010 - Gwoneon-gu, Suwon-si, Gyeonggi-do

↳ These are Search result which shows all KIM, Seung-Won in the entire Country.

Person's name Search (Present 101~110, All 193rd case)

KIM, Seung-Won	031-221-9337 - Gwonseon-gu, Suwon-si, Gyeonggi-do
KIM, Seung-Won	031-215-4294 - Yeongtong-gu, Suwon-si, Gyeonggi-do
KIM, Seung-Won	031-237-4187 - Paldal-gu, Suwon-si, Gyeonggi-do
KIM, Seung-Won	031-387-7155 - Dongan-gu, Anyang-si, Gyeonggi-do
KIM, Seung-Won	031-421-9045 - Dongan-gu, Anyang-si, Gyeonggi-do
KIM, Seung-Won	031-455-8439 - Dongan-gu, Anyang-si, Gyeonggi-do
KIM, Seung-Won	031-464-2378 - Manan-gu, Anyang-si, Gyeonggi-do
KIM, Seung-Won	031-969-7960 - Deogyang-gu, Goyang-si, Gyeonggi-do
KIM, Seung-Won	031-979-4775 - Deogyang-gu, Goyang-si, Gyeonggi-do
KIM, Seung-Won	031-978-4733 - Deogyang-gu, Goyang-si, Gyeonggi-do

↳ These are Search result which shows all KIM, Seung-Won in the entire Country.

Person's name Search (Present 111~120, All 193rd case)

KIM, Seung-Won	02-3158-1950 - Deogyang-gu, Goyang-si, Gyeonggi-do
KIM, Seung-Won	031-901-9569 - Ilsandong-gu, Goyang-si, Gyeonggi-do
KIM, Seung-Won	031-903-7657 - Ilsandong-gu, Goyang-si, Gyeonggi-do
KIM, Seung-Won	031-921-9795 - Ilsanseo-gu, Goyang-si, Gyeonggi-do
KIM, Seung-Won	031-415-5145 - Sangrok-gu, Ansan-si, Gyeonggi-do
KIM, Seung-Won	031-408-8081 - Sangrok-gu, Ansan-si, Gyeonggi-do
KIM, Seung-Won	031-408-7544 - Sangrok-gu, Ansan-si, Gyeonggi-do
KIM, Seung-Won	031-287-4557 - Giheung-gu, Yongin-si, Gyeonggi-do
KIM, Seung-Won	031-981-3551 - Daegot-myeon, Gimpo-si, Gyeonggi-do
KIM, Seung-Won	031-511-1621 - Hwado-eup, Namyangju-si, Gyeonggi-do

↳ These are Search result which shows all KIM, Seung-Won in the entire Country.

Person's name Search (Present 121~130, All 193rd case)

KIM, Seung-Won	031-857-9444 - Saengyeon-dong, Dongducheon-si, Gyeonggi-do
KIM, Seung-Won	031-657-5925 - Gongdo-eup, Anseong-si, Gyeonggi-do
KIM, Seung-Won	031-653-2454 - Gongdo-eup, Anseong-si, Gyeonggi-do
KIM, Seung-Won	031-879-9597 - Baekseok-eup, Yangju-si, Gyeonggi-do
KIM, Seung-Won	031-826-7760 - Jangheung-myeon, Yangju-si, Gyeonggi-do
KIM, Seung-Won	031-941-9062 - Gwangtan-myeon, Paju-si, Gyeonggi-do
KIM, Seung-Won	031-953-2007 - Munsan-eup, Paju-si, Gyeonggi-do
KIM, Seung-Won	031-942-5882 - Geumchon-dong, Paju-si, Gyeonggi-do
KIM, Seung-Won	031-792-8632 - Deokpung-dong, Hanam-si, Gyeonggi-do
KIM, Seung-Won	031-791-4057 - Mangwol-dong, Hanam-si, Gyeonggi-do

↳ These are Search result which shows all KIM, Seung-Won in the entire Country.

Person's name Search (Present 131~140, All 193rd case)

KIM, Seung-Won	031-366-8338 - Songsan-myeon, Hwasseong-si, Gyeonggi-do
KIM, Seung-Won	055-352-9356 - Gagok-dong, Miryang-si, Gyeongsangnam-do
KIM, Seung-Won	055-282-0840 - Namyang-dong, Changwon-si, Gyeongsangnam-do
KIM, Seung-Won	055-282-2036 - Daebang-dong, Changwon-si, Gyeongsangnam-do
KIM, Seung-Won	054-751-6955 - Geoncheon-eup, Gyeongju-si, Gyeongbuk
KIM, Seung-Won	054-471-3313 - Sandong-myeon, Gumi-si, Gyeongbuk
KIM, Seung-Won	054-482-0474 - Seonsan-eup, Gumi-si, Gyeongbuk
KIM, Seung-Won	054-475-7743 - Okgye-e-dong, Gumi-si, Gyeongbuk
KIM, Seung-Won	054-434-3473 - Bugok-dong, Gimcheon-si, Gyeongbuk
KIM, Seung-Won	054-571-6561 - Gaeun-eup, Mungyeong-si, Gyeongbuk

↳ These are Search result which shows all KIM, Seung-Won in the entire Country.

Person's name Search (Present 141~150, All 193rd case)

KIM, Seung-Won	054-555-9665 - Heungsdeok-dong, Mungyeong-si, Gyeongsbuk
KIM, Seung-Won	054-854-1657 - Songhyeon-dong, Andong-si, Gyeongsbuk
KIM, Seung-Won	054-858-3901 - Ijik-myeon, Andong-si, Gyeongsbuk
KIM, Seung-Won	054-787-0374 - Hupo-myeon, Uljin-gun, Gyeongsbuk
KIM, Seung-Won	054-833-2015 - Danchon-myeon, Uliseong-gun, Gyeongsbuk
KIM, Seung-Won	061-433-0755 - Maryang-myeon, Gangjin-gun, Jeollanam-do
KIM, Seung-Won	061-783-2014 - Gurye-eup, Gurye-gun, Jeollanam-do
KIM, Seung-Won	061-782-5629 - Gurye-eup, Gurye-gun, Jeollanam-do
KIM, Seung-Won	061-331-6578 - Geumcheon-myeon, Naju-si, Jeollanam-do
KIM, Seung-Won	061-273-5646 - Sanjeong-dong, Mokpo-si, Jeollanam-do

L These are Search result which shows all KIM, Seung-Won in the entire Country.

Person's name Search (Present 151~160, All 193rd case)

KIM, Seung-Won	061-281-8541 - Sang-dong, Mokpo-si, Jeollanam-do
KIM, Seung-Won	061-244-8817 - Honam-dong, Mokpo-si, Jeollanam-do
KIM, Seung-Won	061-284-8487 - Sinheung-dong, Mokpo-si, Jeollanam-do
KIM, Seung-Won	061-853-8996- Deungnyang-myeon, Boseong-gun, Jeollanam-do
KIM, Seung-Won	061-852-0974 - Joseong-myeon, Boseong-gun, Jeollanam-do
KIM, Seung-Won	061-752-8002 - Yongdang-dong, Suncheon-si, Jeollanam-do
KIM, Seung-Won	061-721-8890 - Jorye-dong, Suncheon-si, Jeollanam-do
KIM, Seung-Won	061-352-3515 - Daema-myeon, Yeonggwang-gun, Jeollanam-do
KIM, Seung-Won	061-862-1069 - Jangheung-eup, Jangheung-gun, Jeollanam-do
KIM, Seung-Won	061-323-1357 - Nasan-myeon, Hampyeong-gun, Jeollanam-do

↳ These are Search result which shows all KIM, Seung-Won in the entire Country.

Person's name Search (Present 161~170, All 193rd case)

KIM, Seung-Won	061-535-5948 - Hwangsan-myeon, Haenam-gun, Jeollanam-do
KIM, Seung-Won	061-374-1561 - Cheongpung-myeon, Hwasun-gun, Jeollanam-do
KIM, Seung-Won	063-212-0672 - Deokjin-gu, Jeonju-si, Jeonbuk
KIM, Seung-Won	063-211-0503 - Deokjin-gu, Jeonju-si, Jeonbuk
KIM, Seung-Won	063-242-6418 - Deokjin-gu, Jeonju-si, Jeonbuk
KIM, Seung-Won	063-225-8827 - Wansan-gu, Jeonju-si, Jeonbuk
KIM, Seung-Won	063-464-4649 - Oksan-myeon, Gunsan-si, Jeonbuk
KIM, Seung-Won	063-631-9008 - Noam-dong, Namwon-si, Jeonbuk
KIM, Seung-Won	063-625-7236 - Noam-dong, Namwon-si, Jeonbuk
KIM, Seung-Won	063-322-1935 - Muju-eup, Muju-gun, Jeonbuk

↳ These are Search result which shows all KIM, Seung-Won in the entire Country.

Person's name Search (Present 171~180, All 193rd case)

KIM, Seung-Won	063-261-8918 - Samnye-eup, Wanju-gun, Jeonbuk
KIM, Seung-Won	063-291-9440 - Samnye-eup, Wanju-gun, Jeonbuk
KIM, Seung-Won	064-738-0868 - Hawon-dong, Seogwipo-si, Jeju-do
KIM, Seung-Won	064-767-2236 - Hahyo-dong, Seogwipo-si, Jeju-do
KIM, Seung-Won	064-723-5432 - Geonip-dong, Jeju-si, Jeju-do
KIM, Seung-Won	064-746-6635 - Nohyeong-dong, Jeju-si, Jeju-do
KIM, Seung-Won	064-702-2500 - Samdo 2-dong, Jeju-si, Jeju-do
KIM, Seung-Won	041-753-9811 - Chubu-myeon, Geumsan-gun, Chungcheongnam-do
KIM, Seung-Won	041-732-8391 - Gwangseok-myeon, Nonsan-si, Chungcheongnam-do
KIM, Seung-Won	041-733-3080 - Beolgok-myeon, Nonsan-si, Chungcheongnam-do

└ These are Search result which shows all KIM, Seung-Won in the entire Country.

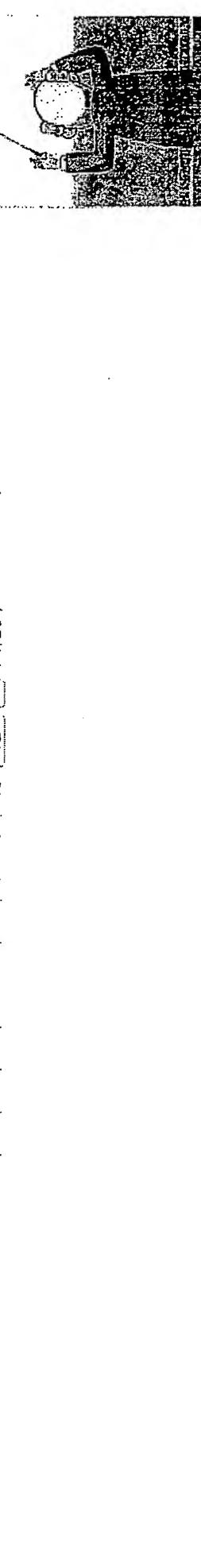
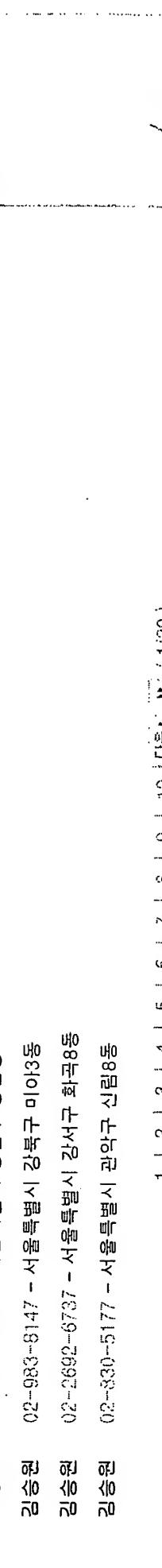
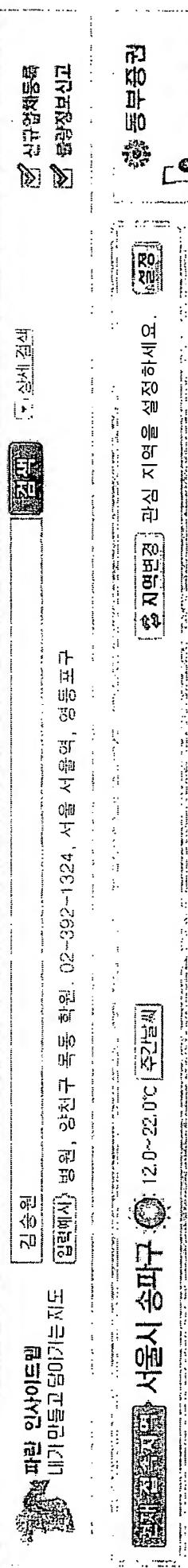
Person's name Search (Present 181~190, All 193rd case)

KIM, Seung-Won	041-935-3706 - Daecheon-dong, Boryeong-si, Chungcheongnam-do
KIM, Seung-Won	041-935-6382 - Myeongcheon-dong, Boryeong-si, Chungcheongnam-do
KIM, Seung-Won	041-931-6407 - Myeongcheon-dong, Boryeong-si, Chungcheongnam-do
KIM, Seung-Won	041-835-2628 - Buyeo-eup, Buyeo-gun, Chungcheongnam-do
KIM, Seung-Won	041-669-0020 - Buseok-myeon, Seosan-si, Chungcheongnam-do
KIM, Seung-Won	041-545-1755 - Bangchuk-dong, Asan-si, Chungcheongnam-do
KIM, Seung-Won	041-634-0574 - Hongseong-eup, Hongseong-gun, Chungcheongnam-do
KIM, Seung-Won	041-212-9001 - Sangdang-gu, Cheongju-si, Chungbuk
KIM, Seung-Won	041-294-3092 - Sangdang-gu, Cheongju-si, Chungbuk
KIM, Seung-Won	043-284-5569 - Heungdeok-gu, Cheongju-si, Chungbuk

↳ These are Search result which shows all KIM, Seung-Won in the entire Country.

Person's name Search (Present 191~192, All 193rd case)

KIM, Seung-Won	043-543-3979 – Naesongni-myeon, Boeun-gun, Chungbuk
KIM, Seung-Won	043-732-1523 - Okcheon-eup, Okcheon-gun, Chungbuk
KIM, Seung-Won	043-855-1110 - Angseong-myeon, Chungju-si, Chungbuk







## 지역정보

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파란교통

쿠온

맛집

하이시티

경기

인사이트

파란 인사이트웹

내가 만들고 싶어지는 지도

인력제사

병원, 암천구 복동 학원, 02-392-1324, 서울 서울역, 영등포구

서울시 송파구 12.0~22.0°C 주간별씨

송파구

전국

→ '전국'에 있는 '김승원' 검색 결과입니다.

검색결과 바로가기 전체 | 업종/상호 | 인명

인명검색 (현재 31~40, 모두 193건)

김승원	02-421-3241 - 서울특별시 송파구 방이동
김승원	02-2203-1624 - 서울특별시 송파구 송파동
김승원	02-2694-1681 - 서울특별시 양천구 신정4동
김승원	02-2648-8646 - 서울특별시 양천구 신정6동
김승원	02-2637-1085 - 서울특별시 영등포구 문래동2가
김승원	02-716-3431 - 서울특별시 용산구 신창동
김승원	02-355-8375 - 서울특별시 은평구 녹번동
김승원	02-737-5629 - 서울특별시 종로구 당주동
김승원	062-973-6420 - 광주광역시 광산구 신월동
김승원	062-954-0191 - 광주광역시 광산구 신창동

[◀] 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 다음 ] ( 4/20 )

신규업체등록  
 블로그신고

월간이적증정  
 상품이 필요할때

1년에 4cm0 허로 키  
가 자랄때  
인스턴트 음식만 종0  
할 때

또래의 풍군신장보다  
자이날때  
상한비만일때

대한민국 향촌문화재청  
등록 73.4cm  
6주 160.7cm

희망성장판  
나이별 성장 그래프  
무로 성장판 검사  
키 크는 스트레칭 복

이란이이 틀에재  
로이도

발육이 늦고 체육학  
기요?  
소아비만비 걸려  
있나요?

인스턴트 음식을  
종이하나요?  
들어깨가 뛰고 자녀  
가나쁜가요?

# Paran 지역정보

지역정보

인명

파란 인사이드랩  
내기 만들고 담아가는 저도

김승원

김승원

【설명】 병원, 응진구 복동 학원, 02-392-1324, 서울 서울역, 영등포구

서울시 송파구 ① 12.0~22.0°C 주간날씨

송파구

전국

나 '전국'에 있는 '김승원' 검색 결과입니다.

검색결과 바로가기 | 전체 | 업종/상호 | 인명

인명검색 (현지 41~50, 모두 193건)

김승원	062-971-9270 - 광주광역시 광산구 월계동
김승원	062-941-7855 - 광주광역시 북구 통림동
김승원	062-430-1698 - 광주광역시 북구 신안동
김승원	062-527-3032 - 광주광역시 북구 유동
김승원	062-269-1305 - 광주광역시 북구 풍향동
김승원	062-632-1834 - 광주광역시 서구 금호동
김승원	053-627-1433 - 대구광역시 남구 대명4동
김승원	053-581-3474 - 대구광역시 달서구 호림동
김승원	053-961-0100 - 대구광역시 동구 동호동
김승원	053-321-6440 - 대구광역시 북구 관음동

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파란 인사이드랩  
내기 만들고 담아가는 저도

김승원

김승원

【설명】 관심 지역을 설정하세요.

설정

김승원

김승원

김승원

부록이 별 성장  
상태이 필요할 때

1년에 4cm이하로  
가자랄 때

인스턴트 음식만 총  
할 때

또래의 펭귄 신장보다  
작아날 때

심한 바이러스일 때

【대한민국 펭귄기동재장재

길자 173.4cm  
01자 160.7cm

길이 173.4cm  
01자 160.7cm

파란 인사이드랩  
내기 만들고 담아가는 저도

김승원

김승원

설정

김승원

김승원

신규업체등록  
불량정보신고

부록이 별 성장  
상태이 필요할 때

1년에 4cm이하로  
가자랄 때

인스턴트 음식만 총  
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01자 160.7cm

길이 173.4cm  
01자 160.7cm

# Param 지역정보

지역정보

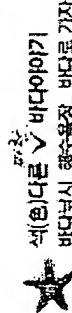
① 14

대종교통

쿠폰

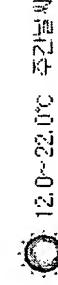
하이사울

인사이트

색(色)다른  바다아이기  
바다낚시, 해수욕장, 바다로 가자!

김승원

신규업체등록  
업장정보신고

제17회 전국민 송파구  12.0~22.0°C 주간날씨

송파구

전국

'전국'에 있는 '김승원' 검색 결과입니다.

검색결과 바로가기 | 전체 | 업종/상호 | 인명

인명검색 (현재 51~60, 모두 193건)

김승원	053-744-9837 - 대구광역시 수성구 수성동1가
김승원	053-425-7879 - 대구광역시 중구 동인동4가
김승원	053-421-3955 - 대구광역시 중구 삼덕동1가
김승원	042-632-7992 - 대전광역시 대덕구 읍내동
김승원	042-527-0916 - 대전광역시 서구 갈마2동
김승원	042-486-6816 - 대전광역시 서구 둔산2동
김승원	042-581-8341 - 대전광역시 서구 매노동
김승원	042-541-8341 - 대전광역시 유성구 원내동
김승원	042-525-0037 - 대전광역시 유성구 장대동
김승원	042-282-1813 - 대전광역시 중구 옥계동

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로그인

기

파란총 5G/FB 웨일 티스코 플로그 뉴스 뉴스

터보

기

경찰

경찰총 5G/FB 웨일 티스코 플로그 뉴스 뉴스

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# Paran 지역정보

점검

로그인

기

지역정보 @114

파란 대중교통  
처음 가는 길도 척척!

김승원  
[한국에서] 병원, 양천구 목동 학원, 02-392-1324, 서울 서울역, 영등포구

신규업체등록  
불량정보신고

경지점속지점 서울시 송파구 12.0~22.0°C 주간날씨

송파구 전국

'전국'에 있는 '김승원' 검색 결과입니다.

검색결과 바로가기 전체 | 업종/상호 | 인명

인명검색 (현재 61~70, 모두 193건)

김승원	051-831-6193 - 부산광역시 강서구 송정동
김승원	051-527-4587 - 부산광역시 금정구 금사동
김승원	051-646-6004 - 부산광역시 남구 문현3동
김승원	051-631-1548 - 부산광역시 남구 문현4동
김승원	051-809-9757 - 부산광역시 부산진구 연지동
김승원	051-361-7160 - 부산광역시 북구 금곡동
김승원	051-336-6552 - 부산광역시 북구 덕천2동
김승원	051-361-6942 - 부산광역시 북구 만덕2동
김승원	051-865-4447 - 부산광역시 연제구 연산3동
김승원	051-765-4497 - 부산광역시 해운대구 좌동

1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 다음 ► ( 7/20 )



검색

상세검색

설정

인명 | 전화번호 | 지정신고

지역변경 | 관심 지역을 설정하세요.

설정

# Paran 지역정보

로그인 파란총 5008 매월 서비스 블로그 뉴스 더보기

검색

① 114 대중교통

미포

하이서울

지도

검색

인사이드맵

색(色)다른 바다이야기  
바다낚시, 바다낚정, 바다로 가자!

신규업체등록  
통장정보신고

서울시 송파구 12.0~22.0°C 주간날씨

송파구 전국

'전국'에 있는 '김승원' 검색 결과입니다.

검색결과 바로가기 전체 | 업종/상호 | 인명

인명검색 (현재 71~80, 모두 193건)

김승원 032-548-4536 - 인천광역시 계양구 서운동

김승원 032-544-3200 - 인천광역시 계양구 직전동

김승원 032-556-0398 - 인천광역시 계양구 작전서운동

김승원 032-873-7730 - 인천광역시 남구 송의동

김승원 032-467-7165 - 인천광역시 남동구 구월1동

김승원 032-466-1245 - 인천광역시 남동구 만수4동

김승원 032-772-1960 - 인천광역시 동구 금곡동

김승원 032-568-7152 - 인천광역시 서구 불노동

김승원 032-814-1628 - 인천광역시 연수구 동춘2동

김승원 032-811-9646 - 인천광역시 연수구 연수1동

« 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 다음 » ( 8/20 )

지역변경 관심 지역을 설정하세요.

설정

설정

(대한민국 평균 | 용평면 차량)

남자 173.4cm  
여자 160.7cm



열반성장면

• 1년에 4cm0.6cm로 커  
• 가자랄 때  
• 인스턴트 음식만 좋아  
• 할 때  
• 또래의 평균 신장보다  
• 차이날 때  
• 심한 비만일 때

• 이런 아이들에게  
• 권해주세요

• 발육이 늦고 비약한  
• 가요?  
• 소아비만에 걸려  
• 있나요?  
• 인스턴트 음식을  
• 좋아하나요?  
• 등어깨가 휙고 자세  
• 가나쁜가요?



# Paran 지역정보

인사이트

구글

비동고동

인사이트

지역정보



파란 인사이트

내기 만들고 담아가는지도  
[알려주시]

김승원  
[병원] 병원, 양천구 육동 학원, 02-392-1324, 서울 서율역, 영등포구

서울시 송파구 12.0~22.0°C 주간체

송파구 전국

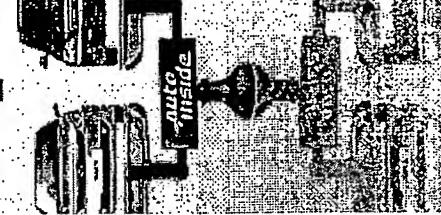
↳ '전국'에 있는 '김승원' 검색 결과입니다.

검색결과 바로가기 전체 | 업종/상호 | 인명

인명검색 (현재 91~100, 모두 193건)

김승원	032-346-2712 - 경기도 부천시 소사구
김승원	032-671-0118 - 경기도 부천시 오정구
김승원	032-671-9995 - 경기도 부천시 원미구
김승원	032-662-1326 - 경기도 부천시 원미구
김승원	032-325-6875 - 경기도 부천시 원미구
김승원	032-321-1717 - 경기도 부천시 원미구
김승원	032-345-7247 - 경기도 부천시 원미구
김승원	031-704-0161 - 경기도 성남시 분당구
김승원	031-713-6222 - 경기도 성남시 수정구
김승원	031-225-7010 - 경기도 수원시 권선구

※ 인명 전화번호 제외신청



“ 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 다음 ” ( 10/20 )







# Paran 지역정보

지역정보 ①14

파란 대중교통  
처음 가는 길도 척척!

김승원

병원, 양천구 목동 학원, 02-392-1324, 서울 서울역, 영등포구  
[현대시]

서울시 송파구 12.0~22.0°C [주간날씨]

송파구

전국

‘전국’에 있는 ‘김승원’ 검색 결과입니다.

검색결과 바로가기 | 전체 | 업종/상호 | 인명

인명검색 (현제 131~140, 모두 193건)

김승원 031-366-8338 - 경기도 화성시 송산면

김승원 055-352-9356 - 경상남도 밀양시 가곡동

김승원 055-282-0840 - 경상남도 창원시 남양동

김승원 055-282-2036 - 경상남도 창원시 대방동

김승원 054-751-6955 - 경상북도 경주시 건천읍

김승원 054-471-3313 - 경상북도 구미시 산동면

김승원 054-482-0474 - 경상북도 구미시 선산읍

김승원 054-475-7743 - 경상북도 구미시 옥계동

김승원 054-434-3473 - 경상북도 김천시 부곡동

김승원 054-571-6561 - 경상북도 문경시 가은읍

[◀] [01월] 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 [▶] (14/20)

신규업체등록  
 흥행정보신고

설정

지역변경 관심 지역을 설정하세요.

날씨

날씨

날씨

설정

지역변경 관심 지역을 설정하세요.

날씨

날씨

날씨

설정

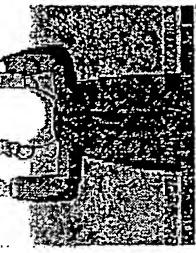
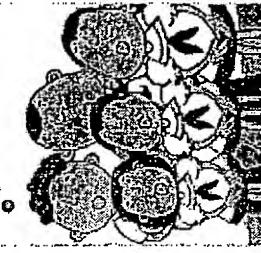
지역변경 관심 지역을 설정하세요.

날씨

날씨

날씨

Happy





# Paran 지역정보

지역정보

©Paran

대중교통

지도

항공사

인터넷

파란 대중교통  
처음 가는 길도 척척!

김승원

【입력내시】 병원, 양천구 목동 학원, 02-392-1324, 서울 서울역, 영등포구

서울시 송파구 12.0~22.0°C 주24시간

송파구

「전국」에 있는 '김승원' 검색 결과입니다.

검색결과 바로가기 | 전체 | 업종/상호 | 인명

인명검색 (현재 151~160, 모두 193건)

김승원 061-281-8541 - 전라남도 목포시 상동

김승원 061-244-8817 - 전라남도 목포시 호남동

김승원 061-284-8487 - 전라남도 목포시 신흥동

김승원 061-853-8996 - 전라남도 보성군 득량면

김승원 061-852-0974 - 전라남도 보성군 조성면

김승원 061-752-8002 - 전라남도 순천시 용당동

김승원 061-721-8890 - 전라남도 순천시 조례동

김승원 061-362-3515 - 전라남도 영광군 대미면

김승원 061-862-1069 - 전라남도 장흥군 장흥읍

김승원 061-323-1357 - 전라남도 학평군 나산면

14 | 01월 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 | 71 | 72 | 73 | 74 | 75 | 76 | 77 | 78 | 79 | 80 | 81 | 82 | 83 | 84 | 85 | 86 | 87 | 88 | 89 | 90 | 91 | 92 | 93 | 94 | 95 | 96 | 97 | 98 | 99 | 100 | 101 | 102 | 103 | 104 | 105 | 106 | 107 | 108 | 109 | 110 | 111 | 112 | 113 | 114 | 115 | 116 | 117 | 118 | 119 | 120 | 121 | 122 | 123 | 124 | 125 | 126 | 127 | 128 | 129 | 130 | 131 | 132 | 133 | 134 | 135 | 136 | 137 | 138 | 139 | 140 | 141 | 142 | 143 | 144 | 145 | 146 | 147 | 148 | 149 | 150 | 151 | 152 | 153 | 154 | 155 | 156 | 157 | 158 | 159 | 160 | 161 | 162 | 163 | 164 | 165 | 166 | 167 | 168 | 169 | 170 | 171 | 172 | 173 | 174 | 175 | 176 | 177 | 178 | 179 | 180 | 181 | 182 | 183 | 184 | 185 | 186 | 187 | 188 | 189 | 190 | 191 | 192 | 193 | 194 | 195 | 196 | 197 | 198 | 199 | 200 | 201 | 202 | 203 | 204 | 205 | 206 | 207 | 208 | 209 | 210 | 211 | 212 | 213 | 214 | 215 | 216 | 217 | 218 | 219 | 220 | 221 | 222 | 223 | 224 | 225 | 226 | 227 | 228 | 229 | 230 | 231 | 232 | 233 | 234 | 235 | 236 | 237 | 238 | 239 | 240 | 241 | 242 | 243 | 244 | 245 | 246 | 247 | 248 | 249 | 250 | 251 | 252 | 253 | 254 | 255 | 256 | 257 | 258 | 259 | 260 | 261 | 262 | 263 | 264 | 265 | 266 | 267 | 268 | 269 | 270 | 271 | 272 | 273 | 274 | 275 | 276 | 277 | 278 | 279 | 280 | 281 | 282 | 283 | 284 | 285 | 286 | 287 | 288 | 289 | 290 | 291 | 292 | 293 | 294 | 295 | 296 | 297 | 298 | 299 | 300 | 301 | 302 | 303 | 304 | 305 | 306 | 307 | 308 | 309 | 310 | 311 | 312 | 313 | 314 | 315 | 316 | 317 | 318 | 319 | 320 | 321 | 322 | 323 | 324 | 325 | 326 | 327 | 328 | 329 | 330 | 331 | 332 | 333 | 334 | 335 | 336 | 337 | 338 | 339 | 340 | 341 | 342 | 343 | 344 | 345 | 346 | 347 | 348 | 349 | 350 | 351 | 352 | 353 | 354 | 355 | 356 | 357 | 358 | 359 | 360 | 361 | 362 | 363 | 364 | 365 | 366 | 367 | 368 | 369 | 370 | 371 | 372 | 373 | 374 | 375 | 376 | 377 | 378 | 379 | 380 | 381 | 382 | 383 | 384 | 385 | 386 | 387 | 388 | 389 | 390 | 391 | 392 | 393 | 394 | 395 | 396 | 397 | 398 | 399 | 400 | 401 | 402 | 403 | 404 | 405 | 406 | 407 | 408 | 409 | 410 | 411 | 412 | 413 | 414 | 415 | 416 | 417 | 418 | 419 | 420 | 421 | 422 | 423 | 424 | 425 | 426 | 427 | 428 | 429 | 430 | 431 | 432 | 433 | 434 | 435 | 436 | 437 | 438 | 439 | 440 | 441 | 442 | 443 | 444 | 445 | 446 | 447 | 448 | 449 | 450 | 451 | 452 | 453 | 454 | 455 | 456 | 457 | 458 | 459 | 460 | 461 | 462 | 463 | 464 | 465 | 466 | 467 | 468 | 469 | 470 | 471 | 472 | 473 | 474 | 475 | 476 | 477 | 478 | 479 | 480 | 481 | 482 | 483 | 484 | 485 | 486 | 487 | 488 | 489 | 490 | 491 | 492 | 493 | 494 | 495 | 496 | 497 | 498 | 499 | 500 | 501 | 502 | 503 | 504 | 505 | 506 | 507 | 508 | 509 | 510 | 511 | 512 | 513 | 514 | 515 | 516 | 517 | 518 | 519 | 520 | 521 | 522 | 523 | 524 | 525 | 526 | 527 | 528 | 529 | 530 | 531 | 532 | 533 | 534 | 535 | 536 | 537 | 538 | 539 | 540 | 541 | 542 | 543 | 544 | 545 | 546 | 547 | 548 | 549 | 550 | 551 | 552 | 553 | 554 | 555 | 556 | 557 | 558 | 559 | 560 | 561 | 562 | 563 | 564 | 565 | 566 | 567 | 568 | 569 | 570 | 571 | 572 | 573 | 574 | 575 | 576 | 577 | 578 | 579 | 580 | 581 | 582 | 583 | 584 | 585 | 586 | 587 | 588 | 589 | 590 | 591 | 592 | 593 | 594 | 595 | 596 | 597 | 598 | 599 | 600 | 601 | 602 | 603 | 604 | 605 | 606 | 607 | 608 | 609 | 610 | 611 | 612 | 613 | 614 | 615 | 616 | 617 | 618 | 619 | 620 | 621 | 622 | 623 | 624 | 625 | 626 | 627 | 628 | 629 | 630 | 631 | 632 | 633 | 634 | 635 | 636 | 637 | 638 | 639 | 640 | 641 | 642 | 643 | 644 | 645 | 646 | 647 | 648 | 649 | 650 | 651 | 652 | 653 | 654 | 655 | 656 | 657 | 658 | 659 | 660 | 661 | 662 | 663 | 664 | 665 | 666 | 667 | 668 | 669 | 670 | 671 | 672 | 673 | 674 | 675 | 676 | 677 | 678 | 679 | 680 | 681 | 682 | 683 | 684 | 685 | 686 | 687 | 688 | 689 | 690 | 691 | 692 | 693 | 694 | 695 | 696 | 697 | 698 | 699 | 700 | 701 | 702 | 703 | 704 | 705 | 706 | 707 | 708 | 709 | 710 | 711 | 712 | 713 | 714 | 715 | 716 | 717 | 718 | 719 | 720 | 721 | 722 | 723 | 724 | 725 | 726 | 727 | 728 | 729 | 7210 | 7211 | 7212 | 7213 | 7214 | 7215 | 7216 | 7217 | 7218 | 7219 | 7220 | 7221 | 7222 | 7223 | 7224 | 7225 | 7226 | 7227 | 7228 | 7229 | 7230 | 7231 | 7232 | 7233 | 7234 | 7235 | 7236 | 7237 | 7238 | 7239 | 7240 | 7241 | 7242 | 7243 | 7244 | 7245 | 7246 | 7247 | 7248 | 7249 | 7250 | 7251 | 7252 | 7253 | 7254 | 7255 | 7256 | 7257 | 7258 | 7259 | 7260 | 7261 | 7262 | 7263 | 7264 | 7265 | 7266 | 7267 | 7268 | 7269 | 7270 | 7271 | 7272 | 7273 | 7274 | 7275 | 7276 | 7277 | 7278 | 7279 | 7280 | 7281 | 7282 | 7283 | 7284 | 7285 | 7286 | 7287 | 7288 | 7289 | 7290 | 7291 | 7292 | 7293 | 7294 | 7295 | 7296 | 7297 | 7298 | 7299 | 72100 | 72101 | 72102 | 72103 | 72104 | 72105 | 72106 | 72107 | 72108 | 72109 | 72110 | 72111 | 72112 | 72113 | 72114 | 72115 | 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72241 | 72242 | 72243 | 72244 | 72245 | 72246 | 72247 | 72248 | 72249 | 72250 | 72251 | 72252 | 72253 | 72254 | 72255 | 72256 | 72257 | 72258 | 72259 | 72260 | 72261 | 72262 | 72263 | 72264 | 72265 | 72266 | 72267 | 72268 | 72269 | 72270 | 72271 | 72272 | 72273 | 72274 | 72275 | 72276 | 72277 | 72278 | 72279 | 72280 | 72281 | 72282 | 72283 | 72284 | 72285 | 72286 | 72287 | 72288 | 72289 | 72290 | 72291 | 72292 | 72293 | 72294 | 72295 | 72296 | 72297 | 72298 | 72299 | 72300 | 72301 | 72302 | 72303 | 72304 | 72305 | 72306 | 72307 | 72308 | 72309 | 72310 | 72311 | 72312 | 72313 | 72314 | 72315 | 72316 | 72317 | 72318 | 72319 | 72320 | 72321 | 72322 | 72323 | 72324 | 72325 | 72326 | 72327 | 72328 | 72329 | 72330 | 72331 | 72332 | 72333 | 72334 | 72335 | 72336 | 72337 | 72338 | 72339 | 72340 | 72341 | 72342 | 72343 | 72344 | 72345 | 72346 | 72347 | 72348 | 72349 | 72350 | 72351 | 72352 | 72353 | 72354 | 72355 | 72356 | 72357 | 72358 | 72359 | 72360 | 72361 | 72362 | 72363 | 72364 | 72365 | 72366 | 72367 | 72368 | 72369 | 72370 | 72371 | 72372 | 72373 | 72374 | 72375 | 72376 | 72377 | 72378 | 72379 | 72380 | 72381 | 72382 | 72383 | 72384 | 72385 | 72386 | 72387 | 72388 | 72389 | 72390 | 72391 | 72392 | 72393 | 72394 | 72395 | 72396 | 72397 | 72398 | 72399 | 72400 | 72401 | 72402 | 72403 | 72404 | 72405 | 72406 | 72407 | 72408 | 72409 | 72410 | 72411 | 72412 | 72413 | 72414 | 72415 | 72416 | 72417 | 72418 | 72419 | 72420 | 72421 | 72422 | 72423 | 72424 | 72425 | 72426 | 72427 | 72428 | 72429 | 72430 | 72431 | 72432 | 72433 | 72434 | 72435 | 72436 | 72437 | 72438 | 72439 | 72440 | 72441 | 72442 | 72443 | 72444 | 72445 | 72446 | 72447 | 72448 | 72449 | 72450 | 72451 | 72452 | 72453 | 72454 | 72455 | 72456 | 72457 | 72458 | 72459 | 72460 | 72461 | 72462 | 72463 | 72464 | 72465 | 72466 | 72467 | 72468 | 72469 | 72470 | 72471 | 72472 | 72473 | 72474 | 72475 | 72476 | 72477 | 72478 | 72479 | 72480 | 72481 | 72482 | 72483 | 72484 | 72485 | 72486 | 72487 | 72488 | 72489 | 72490 | 72491 | 72492 | 72493 | 72494 | 72495 | 72496 | 72497 | 72498 | 72499 | 72500 | 72501 | 72502 | 72503 | 72504 | 72505 | 72506 | 72507 | 72508 | 72509 | 72510 | 72511 | 72512 | 72513 | 72514 | 72515 | 72516 | 72517 | 72518 | 72519 | 72520 | 72521 | 72522 | 72523 | 72524 | 72525 | 72526 | 72527 | 72528 | 72529 | 72530 | 72531 | 72532 | 72533 | 72534 | 72535 | 72536 | 72537 | 72538 | 72539 | 72540 | 72541 | 72542 | 72543 | 72544 | 72545 | 72546 | 72547 | 72548 | 72549 | 72550 | 72551 | 72552 | 72553 | 72554 | 72555 | 72556 | 72557 | 72558 | 72559 | 72560 | 72561 | 72562 | 72563 | 72564 | 72565 | 72566 | 72567 | 72568 | 72569 | 72570 | 72571 | 72572 | 72573 | 72574 | 72575 | 72576 | 72577 | 72578 | 72579 | 72580 | 72581 | 72582 | 72583 | 72584 | 72585 | 72586 | 72587 | 72588 | 72589 | 72590 | 72591 | 72592 | 72593 | 72594 | 72595 | 72596 | 72597 | 72598 | 72599 | 72600 | 72601 | 72602 | 72603 | 72604 | 72605 | 72606 | 72607 | 72608 | 72609 | 72610 | 72611 | 72612 | 72613 | 72614 | 72615 | 72616 | 72617 | 72618 | 72619 | 72620 | 72621 | 72622 | 72623 | 72624 | 72625 | 72626 | 72627 | 72628 | 72629 | 72630 | 72631 | 72632 | 72633 | 72634 | 72635 | 72636 | 72637 | 72638 | 72639 | 72640 | 72641 | 72642 | 72643 | 72644 | 72645 | 72646 | 72647 | 72648 | 72649 | 72650 | 72651 | 72652 | 72653 | 72654 | 72655 | 72656 | 72657 | 72658 | 72659 | 72660 | 72661 | 72662 | 72663 | 72664 | 72665 | 72666 | 72667 | 72668 | 72669 | 72670 | 72671 | 72672 | 72673 | 72674 | 72675 | 72676 | 72677 | 72678 | 72679 | 72680 | 72681 | 72682 | 72683 | 72684 | 72685 | 72686 | 72687 | 72688 | 72689 | 72690 | 72691 | 72692 | 72693 | 72694 | 72695 | 72696 | 72697 | 72698 | 72699 | 72700 | 72701 | 72702 | 72703 | 72704 | 72705 | 72706 | 72707 | 72708 | 72709 | 72710 | 72711 | 72712 | 72713 | 72714 | 72715 | 72716 | 72717 | 72718 | 72719 | 72720 | 72721 | 72722 | 72723 | 72724 | 72725 | 72726 | 72727 | 72728 | 72729 | 72730 | 72731 | 72732 | 72733 | 72734 | 72735 | 72736 | 72737 | 72738 | 72739 | 72740 | 72741 | 72742 | 72743 | 72744 | 72745 | 72746 | 72747 | 72748 | 72749 | 72750 | 72751 | 72752 | 72753 | 72754 | 72755 | 72756 | 72757 | 72758 | 72759 | 72760 | 72761 | 72762 | 72763 | 72764 | 72765 | 72766 | 72767 | 72768 | 72769 | 72770 | 72771 | 72772 | 72773 | 72774 | 72775 | 72776 | 72777 | 72778 | 72779 | 72780 | 72781 | 72782 | 72783 | 72784 | 72785 | 72786 | 72787 | 72788 | 72789 | 72790 | 72791 | 72792 | 72793 | 72794 | 72795 | 72796 | 72797 | 72798 | 72799 | 72800 | 72801 | 72802 | 72803 | 72804 | 72805 | 72806 | 72807 | 72808 | 72809 | 72810 | 72811 | 72812 | 72813 | 72814 | 72815 | 72816 | 72817 | 72818 | 72819 | 72820 | 72821 | 72822 | 72823 | 72824 | 72825 | 72826 | 72827 | 72828 | 72829 | 72830 | 72831 | 72832 | 72833 | 72834 | 72835 | 72836 | 72837 | 72838 | 72839 | 72840 | 72841 | 72842 | 72843 | 72844 | 72845 | 72846 | 72847 | 72848 | 72849 | 72850 | 72851 | 72852 | 72853 | 72854 | 72855 | 72856 | 72857 | 72858 | 72859 | 72860 | 72861 | 72862 | 72863 | 72864 | 72865 | 72866 | 72867 | 72868 | 72869 | 72870 | 72871 | 72872 | 72873 | 72874 | 72875 | 72876 | 72877 | 72878 | 72879 | 72880 | 72881 | 72882 | 72883 | 72884 | 72885 | 72886 | 72887 | 72888 | 72889 | 72890 | 72891 | 72892 | 72893 | 72894 | 72895 | 72896 | 72897 | 72898 | 72899 | 72900 | 72901 | 72902 | 72903 | 72904 | 72905 | 72906 | 72907 | 72908 | 72909 | 72910 | 72911 | 72912 | 72913 | 72914 | 72915 | 72916 | 72917 | 72918 | 72919 | 72920 | 72921 | 72922 | 72923 | 72924 | 72925 | 72926 | 72927 | 72928 | 72929 | 72930 | 72931 | 72932 | 72933 | 72934 | 72935 | 72936 | 72937 | 72938 | 72939 | 72940 | 72941 | 72942 | 72943 | 72944 | 72945 | 72946 | 72947 | 72948 | 72949 | 72950 | 72951 | 72952 | 72953 | 72954 | 72955 | 72956 | 72957 | 72958 | 72959 | 72960 | 72961 | 72962 | 72963 | 72964 | 7296

# Paran 지역정보

지역정보 @14

파란 대동교통  
차음 기는 길도 척척!

김승원

【임원역】 병원, 양천구 목동 학원, 02-392-1324, 서울 서울역, 영등포구

서울시 송파구 12.0~22.0°C 주간날씨

송파구

전국

+'전국'에 있는 '김승원' 검색 결과입니다.

검색결과 바로가기 전체 | 업종/상호 | 인명

인명검색 (현재 161~170, 모두 193건)

김승원	061-535-5948 - 전라남도 해남군 황산면
김승원	061-374-1561 - 전라남도 화순군 청동면
김승원	063-212-0672 - 전라북도 전주시 덕진구
김승원	063-211-0503 - 전라북도 전주시 덕진구
김승원	063-242-6418 - 전라북도 전주시 덕진구
김승원	063-225-6827 - 전라북도 전주시 완산구
김승원	063-464-4649 - 전라북도 군산시 옥산면
김승원	063-631-9008 - 전라북도 남원시 노암동
김승원	063-625-7236 - 전라북도 남원시 노암동
김승원	063-322-1935 - 전라북도 무주군 무주읍

[◀] [▶] 101 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | (17/20)

대동교통 | 쿠온 | 맷집 | 히어시울 | 시드 | 현공사진 | 인사이트

김승원

설세검색

검색

검색

신규업체등록

통합정보신고

신규업체등록

통합정보신고

수원 이어폰 청결 청결이 필요합니다

설명

수원 이어폰 청결

1년에 4cm이하로 키  
가져갈 때

인스턴트 음식만 좋아  
할 때

또래의 평균신장보다  
치거나 낮 때

심한비만을 때

인명·전화번호·제외 신경

설명

인명·전화번호·제외 신경

(대한민국 학교기 출생장지로)

몸무게 173.4 cm  
키 160.7 cm



혈관성장판

나이별 성장 그래프  
무료 성장판 검사  
키 크는 스트레칭 법

이제 100이틀이기  
는 아주 중요

발육이 늦고 혈액학  
기요?

소아비만에 걸려  
있나요?

인스턴트 음식을  
좋아하나요?

등어찌가 휙고 자네  
가나쁜가요?



## 지역정보

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색색다른 바다이야기  
바다낚시, 어수육장, 바다로 가자!

신규업체등록  
형광정보신고

맛집

지도

행공사진

인사이트맵

김승원  
[일학주시] 병원, 양천구 목동 학원, 02-392-1324, 서울 서울역, 영등포구

점박

제주도 지역정보 서울시 송파구 12.0~22.0°C 주간날씨

송파구 전국

'전국'에 있는 '김승원' 검색 결과입니다.

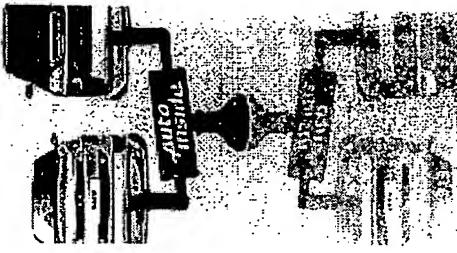
검색결과 바로가기 전체 | 업종/상호 | 인명

인명검색 (현재 181~190, 모두 193건)

김승원	041-935-3706 - 충청남도 보령시 대천동
김승원	041-935-6382 - 충청남도 보령시 명천동
김승원	041-931-6407 - 충청남도 보령시 명천동
김승원	041-835-2628 - 충청남도 부여군 부여읍
김승원	041-669-0020 - 충청남도 서산시 부석면
김승원	041-546-1755 - 충청남도 아산시 방축동
김승원	041-634-0574 - 충청남도 흥성군 흥성읍
김승원	043-212-9001 - 충청북도 청주시 상당구
김승원	043-294-3092 - 충청북도 청주시 상당구
김승원	043-284-5569 - 충청북도 청주시 흥덕구

« 이전 11 12 13 14 15 16 17 18 19 20 » ( 19/20 )

인명전화번호 제외 신청  
• 신세결석



# Paran 지역정보

로그인 화란출 5GB 매일 디스크 블로그 뉴스 더보기

검색

지역정보 @114

인사이트맵

지도

항공사진

지점

카페

인증

파란 인사이트맵

내가 만들고 담아가는지도

신규업체등록  
 블로그보신고

온라인 접속자수 서울시 송파구 12:00~22:00℃ 주간날씨

송파구 전국

‘전국’에 있는 ‘김승원’ 검색 결과입니다.

검색결과 바로가기 | 전체 | 업종/상호 | 인명

인명검색 (현재 191~192, 모두 193건)

김승현 043-543-3979 - 충청북도 보은군 내속리면

김승원 042-732-1523 - 충청북도 익천군 익천읍

김승원 043-855-1110 - 충청북도 충주시 양성면

11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 ( 20/20 )

지역변경 관심 지역을 설정하세요.

인증 신규업체등록 블로그보신고

